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COMMISSION OF INQUIRY INTO THE
USE OF DRUGS AND BANNED PRACTICES
INTENDED TO INCREASE ATHLETIC PERFORMANCE

HEARING HELD AT 2nd FLOOR - 1236 BAY STREET,
TORONTO, ONTARIO
ON WEDNESDAY, JANUARY 18, 1989

VOLUME 7

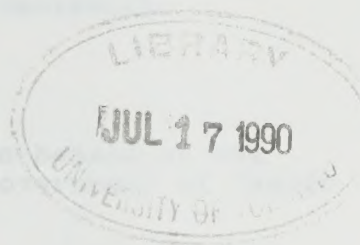
B E F O R E:

THE HONOURABLE MR. JUSTICE CHARLES LEONARD DUBIN

COMMISSION OF INQUIRY INTO THE
USE OF DRUGS AND BANNED PRACTICES
INTENDED TO INCREASE ATHLETIC PERFORMANCE

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VOLUME 7

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Field Association

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Q. Now, with respect to the fact that you were
asked, will you now follow?

WOMAN: ALLRIGHT. THANKS.

Q. -- START EXPLAINING TO ME, WOULD YOU?

A. Yes. So, obviously, first of all,
would also be reviewing the fact that we have
professional background.

Q. I understand that you were the first person
admitted to the University of Illinois as a woman
in 1967 you received a Bachelor's degree in
Department of Physical Education and then you
appeared as the first woman on the list of

A. That's correct.

Q. Then you went on to receive a Master's
degree in the Department of Physical Education and
Physiology at the University of Illinois in 1970
with the A.B. in 1967?

A. Correct.

Q. And were you married at that time?

-- Upon commencing at 10:00 a.m.

THE COMMISSIONER: Mr. Armstrong.

MR. ARMSTRONG: Thank you, Mr. Commissioner.

5 Our next witness is Dr. Norman Gledhill. Dr. Gledhill,
please, will you come forward.

NORMAN GLEDHILL: Sworn.

10 --- DIRECT EXAMINATION BY MR. ARMSTRONG:

Q. Yes, Dr. Gledhill, first of all, I
would like to review with you your academic and
professional background.

15 I understand that your initial university
education was at the University of Western Ontario where
in 1967 you received a Bachelor of Arts Degree from the
Department of Physical Education where you indeed
graduated as the Gold Medalist; is that correct?

A. That's correct.

20 Q. Then you went on and did your Masters
Degree in the Department of Physical Education in Exercise
Physiology at the University of Western Ontario graduating
with the M.A. in 1968?

A. Correct.

25 Q. And then you began study at the

University of Wisconsin and received the Ph.D Degree from the Departments of Physiology and Preventive Medicine in 1976?

A. Correct.

5 Q. Completing your formal education, in 1977 you were a Post Doctoral Fellow in Respiratory Physiology at the Hospital for Sick Children, Toronto; is that right?

A. Correct.

10 Q. Then just covering briefly your academic appointments, you began as an instructor at York University in 1969-1971, and then began rising up the ranks of Assistant Professor, Associate Professor, finally being appointed Professor in 1986?

15 A. Correct.

Q. And in 1973, you were appointed a Research Associate in Respiratory Physiology at the Hospital for Sick Children?

A. That's correct.

20 Q. And you still hold that post at the present time, do you?

A. Yes. I haven't been that active there for the last couple of years, but, yes.

25 Q. In 1986, you were appointed the Chair of the Department of Physical Education, Recreation and

Athletics at York University?

A. That's correct.

Q. You hold that position today?

A. Yes, I do.

5 Q. Then looking at your related professional appointments, there are a number of them but let me see if I can hit some of the highlights, at least the highlights for our purposes. In 1981-1982, you were President, Canadian Association of Sport Sciences?

10 A. That's correct.

Q. 1983 to 1988, Chairman, Medical/Scientific Committee, Canadian Figure Skating Association?

A. Yes.

15 Q. 1984 to 1986, Chairman of the Ontario Association of Sport Scientists?

A. Correct.

Q. 1984 to 1987, Chairman of the Committee on Doping and Amateur Sport for Canada about which we have
20 heard so much already?

A. That's correct.

Q. And then 1985 to 1988, you were Finance Chairman or are Finance Chairman, International Conference on Exercise, Fitness and Health?

25 A. That's correct.

Q. And again, important from our perspective is from 1984 to 1986 you were President, Sport Medicine Council of Canada?

A. That's correct.

5 Q. And 1987 to the present, Chairman of the Ontario Fitness Safety Standards Committee?

A. That's correct.

Q. And then one of your most recent appointments, if I can read my scribbled hand, Chairman, 10 Medical Scientific Committee of the International Squash, Rackets Association which is a recent appointment?

A. That's correct.

Q. And I understand that that position you, among other things, are responsible for doping 15 control for the International Squash Rackets Association?

A. That's correct.

Q. Mr. Commissioner, I have given the registrar and others and yourself a copy of the CV, could we have it marked as Exhibit 56?

20 THE COMMISSIONER: Thank you.

THE REGISTRAR: 56.

EXHIBIT NO. 56: Curriculum Vitae of Dr. Norman Gledhill.

25

MR. ARMSTRONG:

Q. Now, at the risk of repetition, I would like to ask you a few questions about the Sport Medicine Council of Canada. As I understand the evidence so far, it is essentially a professional organization of four national professional associations which was established 10 years ago?

A. There are the professional member associations and then there are also the sport associations.

Q. All right.

A. So, it's a combination of the two, but, yes, there are four national professional associations that are primary members of that council.

Q. And then I understand that the Sport Medicine Council of Canada recently published a brochure which in effect sets out your organizational structure, the programs and services and so on. And you gave me copy of that last night. Do you have a copy before you?

A. Yes, I do.

MR. ARMSTRONG: Could we have that as Exhibit 57.

THE REGISTRAR: 57.

THE COMMISSIONER: I don't think I have that in my material.

MR. ARMSTRONG: You should, it was there
this morning. Yes, it is, it is right ---

THE COMMISSIONER: Oh, this is the
phamplet.

5 MR. ARMSTRONG: Yes.

THE COMMISSIONER: It's not a brochure, it
is a pamphlet.

MR. ARMSTRONG: A rose by any other name.

10 All right. Could we have the pamphlet
marked as Exhibit 57.

--- EXHIBIT NO. 57: Pamphlet published by the Sport
Medicine Council of Canada.

15 MR. ARMSTRONG:

Q. Then the constituent organizations as
disclosed by the constituent professional organizations,,
as disclosed by Exhibit 57 are, first of all, the Canadian
Academy of Sport Medicine, and do I take it the members of
20 that association are physicians dedicated to treating
sports injuries?

A. Yes, they are. Dr. Pipe is a member of
that association.

Q. All right. Then the second body making
25 up the Sport Medicine Council of Canada is the Canadian

Association of Sport Scientists. And who are the sport scientists?

A. University professors, such as myself, researchers, and other individuals, educators, who are involved in supplying scientific services to athletes, such as training programs, athlete assessment, nutritional information, psychological counselling. These are the sport scientists that make up the Canadian Association of Sport Scientists.

THE COMMISSIONER: Sport medicine are made up of physicians and the sport science are not physicians in that sense?

THE WITNESS: That's correct. The Canadian Academy of Sport Medicine, they are a group of physicians, practicing physicians.

THE COMMISSIONER: Thank you.

MR. ARMSTRONG:

Q. Now, looking at the group of sport scientists that you have just outlined, you, for example, are a physiologist with a particular specialty in exercise physiology?

A. That's correct.

Q. Now, tell me, because I often speak out an abundance of ignorance, what is physiology?

A. It's the study of the functions, and processes of the body, such as cardiovascular functions, respiratory functions. And then exercise physiology would be specifically the study of these functions during exercise. So, the effects of training on the cardiovascular and respiratory system for example, or on muscle and metabolism.

Q. All right. And among the sport scientist groups, I don't think you mentioned a moment ago, but there are also people called biomechanicians?

A. That's correct.

Q. Biomechanicians?

A. Yes.

Q. What, for example, do those scientists do?

A. Well, an example would be looking at the optimal angle of take off in a long jump or a high jump, what is the optimal dip that person should take before jumping to spike a ball or to shoot a basketball. So, they would look at optimizing the mechanical aspects of motion performance.

Q. I suppose we could retain one of those people to look after the Commissioner's serve in tennis, could we?

A. That person would help, providing the

Commissioner needs help.

THE COURT: I don't need it now, I took a week off from practice, but you and I will have a chat later, but don't tell Mr. Armstrong.

5

MR. ARMSTRONG:

Q. All right. Then moving along, the third professional group is the Canadian Athletic Therapist Association.

10

THE COMMISSIONER: Let me ask you just a moment while we are on the sports sciences. What other scientists, physiologist and you have these bio ---

THE WITNESS: Biomechanicians.

THE COMMISSIONER: Yes.

15

THE WITNESS: There are also sports psychologists. They are actually changing their name because there is some concern about the people who are practicing psychologists and the use of that name, and they are now, I think, calling themselves sport behavior counsellors.

20

There are also people who are in administration and people who are in history who are also doing research in the sport area, nutritional experts. These are all then termed collectively sport scientists.

25

THE COMMISSIONER: Thank you.

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MR. ARMSTRONG:

Q. Okay. Then moving along to the third group making up the Sport Medicine Council of Canada, we have the Canadian Athletic Therapist Association. And who are those people?

A. They are the people who provide on-field and sideline services to athletes, so the person who goes on during the game if there is an injury and would be involved in the training of athletes. They are often termed trainers, and their preparation is either a community college graduate or perhaps from a university undergraduate or even a Masters programs learning athletic therapy.

Q. I see.

And would it be a fair generalization to say that if the person obtained his academic training in the United States he is likely to be a graduate, a university graduate. If he obtained his training in Canada, it's more likely to be a community college graduate?

A. That would be the trend. They have a large number of people graduating from community colleges in Canada who are athletic trainers. And so we do have a lot of these people in Canada, whereas they don't have the same in United States.

THE COMMISSIONER: As distinguished from coaching, they are not coaches?

THE WITNESS: No, they are not coaches, they are trainers. A person might happen to be an athletic therapist and also have experience as a coach at the same time.

THE COMMISSIONER: Thank you.

MR. ARMSTRONG:

10 Q. So the person or persons that we often see go on the field in the football game to administer a acute aid to a football player who is lying on the ground with an injury is a ---

A. That's correct.

15 Q. It's that ---

A. They are athletic therapists, yes.

Q. Then the fourth group is the Canadian Physiotherapy Association, Sport Physiotherapy Division. I guess that speaks for itself, the title, but just tell us briefly about that group?

20 A. These people have an undergraduate degree in physiotherapy. They are certified physiotherapists. And physiotherapists do a number of things, working with ageing individuals, rehabilitation of injuries and various other problems, but specifically

25

those people who have extra training in the sports area to deal with sports injuries, they are the group, then, that would be associated with the Sport Medicine Council of Canada.

5

10

15

20

25

Q. All right. Now....

THE COMMISSIONER: May I just ask about this, this Sport Medicine Council, is an independent body, is it?

5 THE WITNESS: That's correct. It is independent -- it is not a government committee. It is funded by the government but it is independent of the government.

10 THE COMMISSIONER: Are you most of you volunteers?

THE WITNESS: We are all -- there is a professional staff.

THE COMMISSIONER: The administrative staff.

15 THE WITNESS: There is an administrative staff who are paid but all of the voting members, whether they be the people that we just talked about now that Mr. Armstrong has identified, the various professional associations, or the actual clientele, the athletes and the other people.

20 THE COMMISSIONER: Yes? Are all volunteers?

THE WITNESS: They're all volunteers.

MR. ARMSTRONG:

25 Q. All right. Now, if we -- let me just ask ask you this. As I understand it, from brief

discussions you and I had yesterday, these four professional associations that we've just reviewed found that they were all delivering medical scientific services of one kind or another to athletes, particularly high performance athletes, that you had problems in common, and so the initiative came, as it were, to put the four groups together under a single organization called the Sport Medicine Council of Canada, is that correct?

A. That's correct. The idea was to co-ordinate the medical, paramedical and scientific services to the sport associations and the high performance athletes.

Q. And then looking at the client group that your organization served and serves, that appears in the pamphlet under the heading SMCC clientele and would you just take us through that briefly, Dr. Gledhill?

A. In the National Sport Organizations and Technical Council, they are the individuals who are working directly with the athletes in each sport. So each sport has a national sport organization and a technical director and the technical directors are the ones who have the specific expertise in, for example, figure skating or wrestling or swimming and they meet on a technical council, so the representation on the Sport Medicine Council of Canada of the national sport organizations and

the technical council are two individuals from that group.

Secondly, there is a Canadian Olympic Association and because the Olympic Association require teams of physicians and physiotherapists and athlete therapists to attend major games and provide services to the athletes, they come to the Sport Medicine Council with their requirements and the Council provides or meets those requirements.

Q. All right. Can I just stop you there.

We, unfortunately, didn't hear yet from the Canadian Olympic Association, but from what I've read, I see they have a, Canadian Olympic Association for the last Olympic Games in Seoul, have a medical staff, Dr. Stanish whose name was mentioned yesterday, was the Chief Medical Officer.

Now, would you have, in effect, supplied through the Sport Medicine Council of Canada, Dr. Stanish and the staff of the Canadian Olympic team in Seoul?

A. Yes, we would. So the team is named by the Sport Medicine Council according to a formula that was worked out a number of years ago.

THE COMMISSIONER: You mean the team of....

THE WITNESS: Physicians,
physiotherapists ---

THE COMMISSIONER: Sport sciences, all these

things, right?

THE WITNESS: That's correct.

THE COMMISSIONER: They come to you for help and you assign those?

5 THE WITNESS: Exactly. And that's exactly what's the case with the next group, the Commonwealth Games Association of Canada; they, too, come forward with requests for people to cover the Commonwealth Games and that's exactly the situation there.

10 The Athletes' Advisory Counsel of Canada; two athletes, a male and a female, they're voting members of the committee. They bring forward their particular concerns.

15 The Coaching Association of Canada; they too are voting members on the council.

And the Canadian Inter-University Athletic Union, CIAU; they also have a voting representative.

20 And each of these groups, these user groups as we say, come forward to the Council with requirements as far as medical, paramedical or scientific services and then the council then coordinates the requirements and meets those requirements.

Q. Right. Now, the next heading in the brochure, Exhibit 57, is ---

25 THE COMMISSIONER: In the pamphlet, Mr.

Armstrong.

MR. ARMSTRONG:

Q. I stand corrected. I'm going to be in
5 trouble here today, I can see that.

Programs and services; just give us a
thumbnail sketch, if you will, of the kind of services
that you provide to this client group? You've told us
about providing the medical staff for the Commonwealth
10 Games and the Olympic Games. What other kinds of things
does it do?

A. Well, there is an ongoing program to
monitor the health status of all of Canada's elite
athletes. There are sports nutritional counselling
15 programs, sports psychology programs, where lists of
people who are competent, capable to administer
nutritional information or sports psychology information
are provided to each of the national sport associations so
that they can make use of this information.

20 There are -- there is a field clinic which
is put together and, for major games, not only do we
provide the personnel but we also provide all of the
equipment, the band-aids, the sutures, the medicines, is
taken along with the team to major games so that we can
25 treatment independent of the country that we have to be

in, our athletes

Q. Let me just stop you there. We're going to, later on in this Inquiry, hear some evidence about a Canadian clinic in Seoul that was set up in the Olympic village. Would that have been something that Sport Medicine Council of Canada would have been involved in?

A. That's exactly it. The clinic itself, the building would be provided by Seoul to our Olympic team. The medications, the equipment in there, would be supplied by the Sport Medicine Council of Canada and the people who actually man the clinic are the medical team, the paramedical team that are assigned by the Sport Medicine Council of Canada.

In addition to that, there is the athlete insurance program which relates to treatment and the payment for treatment of sports injuries for athletes and then, finally, the doping control program which is just one more program that the Sport Medicine Council administers.

Q. All right. Now, what about research? Does the Sport Medicine Council of Canada either undertake research or make funds available for research to be done?

A. No. They might recommend that a particular topic be researched and, in particular, the

doping -- the committee on doping in amateur sport would be asked to look at research projects that have been submitted to Sport Canada because they have about \$300,000 each year of research funds and they would ask the
5 committee to look at that, to tell whether or not it seemed like a good study to be done, to be funded.

But, the Sport Medicine Council itself does not have research funding.

Q. Okay. It looks like I got a bit ahead
10 of myself but I'm caught up with myself now because I was going to move along and ask you a few questions about the Committee on Doping in Amateur Sport for Canada because you were its first Chairman from 1984 to 1987 and, again, recognizing that we have already heard a lot about this
15 committee, I don't want to cover old ground, but I think it would be useful for us to put that committee in perspective if you were just to take a moment and tell us about the genesis of that committee because it really did come from the Sport Medicine Council of Canada and you
20 were a key player in that.

So, could you tell us how it arose and how it developed?

A. In 1983, in early to mid 1983...

Q. This is before the Pan Am Games?

25 A. This is before the Pan Am Games, we had

the information from the survey that you've heard referred to in previous evidence on the use of drugs by Canadian athletes, the incidence of drug use.

5 So, the Canadian Association of Sport Sciences was very concerned about this and took to the Sport Medicine Council of Canada their concerns and asked that there be an initiative to do something about this, educational and determined, et cetera.

10 The Sport Medicine Council of Canada, of which I was the vice-president at the time, appointed me as -- actually the president at the time, Dr. Michael Banks, appointed me to chair -- to found and chair a committee which would look at the problem in its entirety and come up with a number of things that could be done, a
15 number of initiatives that we could talk about, to look at this whole issue.

Now, this was galvanized somewhat more with Sport Canada's involvement when the Pan Am practice games occurred and we had the weightlifters who had their medals
20 rescinded because of drug abuse. And, at that point in time, we were funded by Sport Canada to introduce a quite a significant program.

Sport Canada may very well have been working on their own initiative independent of the Council, at
25 that time and, in fact, in talking with their people they

obviously did have that concern. But this initiative came from the Sport Medicine Council of Canada itself.

5 However, after the practice games, Sport Canada and the Sport Medicine Council definitely worked hand-in-hand from then on with this whole issue.

Q. All right. Now, again, risking a slight bit of repetition, but when the committee was set up under your chairmanship, as the first Chairman, how would you have described your particular objects at that point in time? What was it you were going to set out to do and so on?

A. Well, we had four major objectives and Andrew Pipe has spoken to these a bit so I'll be very brief about it.

15 Basically, we wanted to have an educational program and we immediately set about writing articles, both Andrew and I, wrote articles which were published at that time and Andrew's has already been introduced as evidence.

20 We wrote pamphlets which were very straight forward, simple question and answers for athletes to understand.

We put together a slide show which Andrew and I used to speak to many groups. We identified people across the country who were competent to give the slide

25

show and provided the slide show to them so that we could reach as many athletes as possible.

So there was a major educational initiative. The Sports Medicine Information brochure which is a publication of the Sport Medicine Council of Canada published articles on doping and doping issues.

Q. And I take it that not only did you target athletic groups, you also would go into high schools and other broadly-based community organizations to deliver the message?

A. That's correct. I myself gave some talks to high schools, to coaches, to sport associations, to technical directors. We tried to hit as many people in the entire sport community as possible.

15 And Andrew Pipe did the same thing and all these people across the country were doing the same thing locally. But definitely high school talks were part of that. I can recall doing a number of those.

Q. All right. And so that's the education program. What were the other objectives of your committee?

A. The second was the deterrent program. First of all, we had to put in place an operating procedure for doping controls in Canada and we developed the Standard Operating Procedures Manual which has been

25

introduced as evidence previously. That has undergone some changes since that time but, in essence, it's very similar to when we first put it together.

5 The Track and Field Association actually had a major hand in providing that. They had already had a Standard Operating Procedures and it was a matter of taking their's and ---

THE COMMISSIONER: What year are we talking about now?

10 THE WITNESS: The end of 1983 is when we initiated all this. So, 1984 is probably when most of this came to fruition. We worked very, very quickly. The people on the committee were all very dedicated and by the end of 1984 we had most of this in place.

15 In addition to that, we had to have an accredited lab and so we identified the laboratory in Montreal which had been used for the Olympics Games in Montreal, in 1976, and they had maintained their accreditation.

20

MR. ARMSTRONG:

Q. That's INRS?

A. The INRS is the laboratory that actually did the work at the games and they were
25 identified then as being the only ---

THE COMMISSIONER: '76 Olympics?

THE WITNESS: '76 Olympics. They were identified as being the only accredited laboratory in Canada at that time. Subsequently there's been in one in
5 Calgary.

THE COMMISSIONER: Accredited by the IOC?

THE WITNESS: By the International Olympic Committee, the Medical Commission of the IOC.

So, they were identified as the appropriate
10 laboratory and we set about arranging a contract between the INRS and the Sport Medicine Council of Canada, funded by Sport Canada, but actually funded through the Sport Medicine Council of Canada to provide a certain number of tests each year and to provide for a research and ongoing
15 research program and to provide for updating of equipment and turnover of equipment.

And so the contract included provisions for all of these things. That was the deterrent program.

Q. Yes.

20 A. I might add, as well, we learned a lot about, in our first year, about the -- what to do about hearings and the due process procedure. There were no lawyers on this commission and so we were all really scrambling ---

25 Q. How fortunate you were.

A. You might say that.

THE COMMISSIONER: That's why it was accomplished so quickly.

THE WITNESS: Perhaps. But there was a
5 great deal of emphasis put on the rights of the individual and the whole hearing procedure and, in fact, we did engage lawyers at that point in time to make sure that we were doing things appropriately.

10 MR. ARMSTRONG:

Q. And you have already mentioned the research program and, as I understand it, if I'm a bright young physiologist up at York University and have in mind doing a study on blood doping, I could make an application
15 to this committee for research funds to do such a study?

A. The actual application would go to Sport Canada, to the pool of research funds that they have. Sport Canada would then look at the application, realize that it had doping control implications and would
20 then ask the committee on doping to review it and to determine whether or not it seemed like a worthwhile, fundable initiative, and we would provide that type of information.

It then would go back to Sport Canada and
25 then they use the Canadian Association of Sport Sciences,

as a pure review -- a scientific review committee.

So, they have a research committee of the Canadian Association of Sport Sciences who would then send it out to three different independent investigators who would give a scientific validation of it; is this done properly or is it proposed to be done properly?

And then if it meets those criteria, it would be funded.

Q. I take it that some of those projects have, in fact, been ---

A. A couple of particular examples then, there was a study that was done by Don MacKenzie at the University of British Columbia on soda loading that was funded to try to come up with a detection technique for the use of sodium bicarbonate to enhance performance. Another one was on ---

THE COMMISSIONER: We haven't heard much about that?

THE WITNESS: No, we haven't, but I think we're going to do a bit later.

The second one was amino-acid supplements which relate to the provocation of growth hormone internally and that was another one that was funded to look at whether or not that would enhance performance.

So, those were two particular studies that

were funded.

MR. ARMSTRONG:

5 Q. All right. And then, finally, one of your objects, as I understand it, when it was set up was really to carry on what you, in the sporting world, seem to describe as an advocacy function, what I might describe as a lobbying function; am I right?

A. That's correct.

10 Q. And we heard some of that yesterday from Dr. Pipe, but in general terms, what was it you set out to do and does this committee still do it today?

15 A. Well, a major ongoing initiative that we started at the inception of the committee and is still ongoing, is to try and get other sports bodies and other countries throughout the world to all agree to do the same types of things as far as doping controls; they're trying to eradicate the use of drugs to enhance performance.

20 And the most recent initiative, that is the international conference that was held and that we have heard about, in Ottawa this past summer, that's the -- the major initiative in that area. There have been several other things ---

25 Q. Let me just stop you there because we've heard an awful lot about that conference. I take it

the Sport Medicine Council of Canada played a major role in the planning and organization of the conference in Ottawa?

5 A. The actual details would have been done by people who are administrative employees but, yes, philosophically and Dr. Andrew Pipe, pragmatically, spoke at that conference and had a major role in that regard, yes, he did.

10 So that ongoing initiative to try and get the rest of the world to come together and to make sure that -- well, to try and stamp out the use of drugs by athletes.

15 Other examples are the example that Andrew gave yesterday about the birth control pills, the banning of birth control pills, and we put together a file and took that evidence, took the information to the IOC and were able to get them to rescind that particular problem.

20 Another one is that when the U.S. cycling team were involved in blood doping. We will be talking, I realize at length, about blood doping but when the U.S. cycling team admitted to using blood doping at the L.A. Olympics, we wrote numerous letters to the IOC, to the United States Olympic Committee, to the Canadian Olympic Association, lobbied long and hard to get blood doping put
25 on the banned list and, in fact, shortly thereafter it

was.

I'm sure that our lobbying helped, if not was not the primary reason for it. So, those are examples of the advocacy.

5 Q. All right. And just noting in passing, most of the written material that we seem to have before us and, indeed, during the course of your chairmanship, the committee was known as Committee on Doping in Amateur Sport for Canada but the committee is still the same
10 committee, but now known as the National Advisory Committee on Drug Abuse in Amateur Sport for Canada, is that right?

A. That's correct.

Q. All right?

15 A. I don't really know why they changed the name, to tell you truth. I've not been Chairman for the past year, so....

Q. Okay. Now, another thing that I wanted to just deal briefly with you, because it's been worked
20 over to a great degree already, but again, just to give us a kind of broad brush sense of it, this whole testing program that the Sport Medicine Council of Canada so intimately involved with, and we have Exhibit 55 that I'll just put in front of you and I'll see if I can find my own
25 Exhibit 55 -- I've got it.

You have yours, Mr. Commissioner?

THE COMMISSIONER: Yes, thank you

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Now, I, at least in my own mind, still have some questions as to exactly how the determination was made in each of these years as to how many tests were requested, how many tests were allocated and how many tests were in fact done.

5

Now, I know from the discussions that you and I had last night and earlier this morning that we are not going to be able to resolve the details today of how many were allocated and how many were done, but it would be useful I think for the Commissioner if you could tell us in a little more kind of thumbnail sketchway what the process was in the years that you were there, which are '84 through '87?

10

A. First of all, the contract that we have with INRS provides for -- the actual funding itself is based on 1,000 tests. Although it was agreed that if we went over that by 200 tests that there would be no additional charge. By the same token, if we went under it, there would be no money returned because it was a certain cost for maintaining the equipment, personnel, and so on.

15

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Q. So, it was a flat fee?

A. A flat fee based on 1,000.

Q. No tests or 1,200.

25

A. Exactly, but it was based -- the

calculation was based on 1,000 tests, but we could have up to 1,200 if necessary. I suspect if we kept on asking for 1,200 they would have increased the cost.

5 So, as part of the program, the doping control program, the policy of Sport Canada, as you have already heard, all of the national sport organizations must submit their individual programs, educational programs, deterrent programs, where they will be testing, how many athletes each year. And that is submitted to
10 Sport Canada, to the representative who actually administers the doping program, Mr. Ole Sorensen.

At that point in time, this information will be brought to the Committee on Doping and Amateur Sport, now called the National Advisory Committee.

15 Q. Let me just stop you there to see that we have got it.

A. All right.

Q. Let's take synchronized swimming.

A. Yes.

20 Q. They get together each year and as a part of the formulation of their program, they say we want so many tests done?

A. That's correct.

25 Q. And they take that program to Sport Canada and in particular so far as that testing is

concerned, they say to Mr. Ole Sorensen we want so many tests done in this up-coming year?

A. That's correct.

Q. Okay.

5 A. Then Ole Sorensen would bring this information to the Committee and the Committee would then look at it, look at each of the numbers that were requested in light of whether there was an expectation that that sport because of past history, as in
10 weightlifting or track and field where they have a past history of drug abuse, positive tests, that these sports then should have a high number of tests.

Then we also have a second category of areas where anabolic steroids or drugs could potentially enhance
15 performance but they had not necessarily any history of it, certainly in Canada and perhaps somewhere in the world there might have been.

And then there is a third category --

Q. Let me stop you there. So, some
20 Canadian organization had no history of the positive tests but you are hearing of positive tests in Asia or Western Europe or someplace, you say, hey, just a minute here, this may be something that is going to come into our country so maybe we better increase the number of tests?

25 A. That's right.

Q. All right.

A. Or if for example we felt as scientists that potentially there would be an advantage in a particular sport, and let's just take bobsledding although
5 there is no history of it in bobsledding, but large size, large muscle mass would be advantageous undoubtedly in bobsledding. So, that would be a sport that would be put into the second category as a potential abuse sport.

THE COMMISSIONER: As I understand it,
10 though, if the bobsledding federation made no request, then you would not move in and say we want you to take tests, would you?

THE WITNESS: Yes, we would, in fact. In fact bobsledding, and I use bobsledding --

15 THE COURT: As an example?

THE WITNESS: It's strictly as an example. I am not trying to --

THE COMMISSIONER: If any sport organization doesn't make a request --

20 THE WITNESS: Then they are asked to actually make a request. If we take synchronized swimming because that's a very, very low risk sport, there is no incidence and probably not too much effect in a lot of cases, but if synchro swimming are concerned that the
25 people -- that Caroline Waldo, that she has been exposed

to the process that we saw graphically illustrated on the television the other day, that she knows that at the end of it, this is exactly what she is going to have to do. She knows there is somebody accompanying her in the washroom, and she knows exactly what's happened. So she is prepared for this so it does not interfere with her performance.

5 So, it's important that she has rehearsed this. So, it's important for synchronized swimming to make sure that the top competitors in synchronized swimming have undergone this, what could be humiliating, so that they are at least reasonably comfortable with it. So they would in fact ask for it.

10 If a sport that we felt was a moderate risk had not asked for them, then we would indicate then to Ole Sorensen, we feel that this sport should be given a reasonable number of tests, and we think it's inappropriate that they have only asked for one or two.

15 By the same token, the low risk tests if we looked at those sports and we would say, well, this does seem appropriate, yes, we feel as an educational process they should have exposure to -- at least the top athletes should be exposed to this.

20 And so armed with that information, he would then take the list of requested tests, which is what we

25

actually see in front of us now, as far as the bracketed numbers, these are the the tests that were requested each year. And he would then work with the individual sports to come up with the final number of allocated tests which
5 may in fact be identical with the requested, or it may be slightly higher if we felt that they were in a high risk and had not asked for enough, or it might be slightly lower if we felt they were in a low risk and had asked for way too many.

10 MR. ARMSTRONG:

Q. All right.

A. Subsequently -- do you want me to finish this?

Q. Yes.

15 A. Subsequently, they would then know how many tests they had allocated in the each sport. And so, they might have planned to have over the year at various national-type events, 20 or 30 tests, and let's say that for some reason, for reasons beyond their control, a
20 doping control officer did not show up, they were unable to do the testing, or for whatever reasons there were -- some of the equipment was lost or damaged and they were unable to do the test. So it's conceivable that just for administrative reasons the number allocated might not be
25 the number that were actually used.

So, we have three numbers. We have the numbers requested, we have the numbers allocated, and then we have numbers used. And those last two numbers, we don't have here, and, in fact, Sport Canada and the Sport Med Council will have to provide those numbers. You asked me for them this morning, and I just do not have those.

MR. ARMSTRONG: And indeed, Mr. Commissioner, I have already spoken to Mr. Barber and we will speak to counsel for Sport Canada to ---

THE COMMISSIONER: Thank you.

MR. ARMSTRONG: -- dig out those other two numbers.

Q. Just let me review it just briefly. You then at the Sports Medicine Council of Canada really play a consulting role in terms of how many tests will be done?

A. That's correct.

Q. And the initiative comes first from the national sporting organization, to Sport Canada through Mr. Sorensen. He then meets with your Committee, consults with you, you give him the benefit of your advice, and if synchronized swimming has asked for 500 tests, you say, Ole, that's a touch too high?

A. Yes.

Q. And if weightlifting have asked for

ten, you say, Ole maybe give them another five?

A. Or perhaps a hundred.

Q. And then he goes back and negotiates or finalizes the allocation?

5 A. That's correct.

Q. The Sport Medicine Council of Canada does not make the decision, I take it?

A. That final decision? No, in fact, this is a committee of the Sport Medicine Council, just to
10 clear that up as well. It doesn't go to the entire Sport Medicine Council of Canada, it stays with the Committee on Doping.

Q. Sorry, I had that wrong. Okay.

Then, Dr. Gledhill, one of your clear areas
15 of expertise is in the area of blood doping. And I wanted to take some time with you this morning to find out what blood doping is.

And it may be useful, Mr. Commissioner, right off the bat, to mark some of the literature in this
20 field as exhibits, and we will get them marked as exhibits and then refer to them along the way.

Dr. Gledhill, you did what in effect is the original research, in a sense, in regard to blood doping through a research project done in 1978, and the results
25 of that work and study were published in an article

entitled -- and you will have to help me with the
pronunciation. Have you got your article in front of you?

A. No, I haven't, but it's the "Effect of
Induced Erythrocythemia."

5 Q. You say that even faster than you say
other words.

THE COMMISSIONER: Let's do it over once
again a little slower.

10 THE WITNESS: Would you like me to read the
actual exact title?

MR. ARMSTRONG:

Q. Slowly.

15 A. The "Effect of Induced Erythrocythemia
on Aerobic Work Capacity."

THE COMMISSIONER: That's very clear to me,
Mr. Armstrong.

THE WITNESS: Can you say it.

20 MR. ARMSTRONG: Dr. Gledhill and I are
neighbours, and up in North York we talk about very little
else, but after 15 years of being his neighbour I still
can't pronounce it.

THE COMMISSIONER: What number, please?

THE REGISTRAR: 58.

25 MR. ARMSTRONG: Exhibit 58.

EXHIBIT NO. 58: Article entitled:

Effect of Induced Erythrocythemia
on Aerobic Work Capacity.

5

MR. ARMSTRONG:

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Q. The next proposed exhibit is an
article, Dr. Gledhill, that you wrote entitled: Blood
Doping and Related Issues: a Brief Review. And that was
published in a publication called, "Medicine and Science
in Sports and Exercise"

A. That's correct.

MR. ARMSTRONG: Could we, Mr. Commissioner,
have that as Exhibit 59?

THE COMMISSIONER: Thank you.

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THE REGISTRAR: 59.

--- EXHIBIT NO. 59: Article entitled:

Blood Doping and Related Issues:
a Brief Review.

20

MR. ARMSTRONG:

Q. And finally, you wrote an article,
together with others, entitled: Effect of Graded ---

25

THE COMMISSIONER: There is that word
again.

MR. ARMSTRONG:

Q. That's the word again.

A. -- Induced Erythrocythemia ---

5 Q. -- on the Cardiovascular and Metabolic Responses to Exercise. And that was published in the publication of the American Physiological Society in 1986?

A. That's correct.

10 MR. ARMSTRONG: Could we have that, sir, as Exhibit 60?

THE COMMISSIONER: 60, thank you.

THE REGISTRAR: 60.

15 --- EXHIBIT NO. 60: Article entitled: Effect of graded erythrocythemia on cardiovascular and metabolic response to exercise

MR. ARMSTRONG:

20 Q. Now, if I could pause for a moment, Dr. Gledhill brought to my attention this morning that there was an additional publication in this area that we should have the benefit of, and in his own modest way said that it was better than one his articles. I don't believe that, but it is entitled: "Blood Doping as an Ergogenic
25 Aid." And it's the position statement of the American

College of Sports Medicine, and, Dr. Gledhill, you have indicated that this article presents a succinct analysis of blood doping and the related issues?

A. That's correct.

5 Q. All right.

A. Actually, if I could add to that, the American College of Sports Medicine, which is analagous to the Canadian Association of Sport Sciences, is the most prestigious group of scientists in the world. And they
10 take position stands on various issues. And this particular position stand was written for the American College of Sports Medicine and adopted by them formally. Myself and three other people wrote that particular statement.

15 THE COMMISSIONER: This statement that is coming up now?

THE WITNESS: That's correct.

THE COMMISSIONER: You were part of the ---

THE WITNESS: Of the authorship, but they
20 do not acknowledge individual authorship. It becomes an association position.

THE COMMISSIONER: I understand.

MR. ARMSTRONG: All right.

THE COMMISSIONER: 61.

25 MR. ARMSTRONG: Mr. Commissioner, if I

didn't ask already, could we have it as Exhibit 61.

THE REGISTRAR: 61.

--- EXHIBIT NO. 61: Article entitled:

5 Blood Doping as an Ergogenic Aid

MR. ARMSTRONG:

Q. All right. Now -- we will get you one
in a moment.

10 A. Thank you.

Q. All right. Now, Dr. Gledhill, before
we get into blood doping per se, I wanted to ask you about
this term "doping" because it has caused me, at least, a
little confusion. And I want to start, first of all, by
15 looking at what we have marked as Exhibit 18, which is
the ---

THE COMMISSIONER: Do you have a copy for
the witness, please, Mr. Registrar?

MR. ARMSTRONG: Yes, I will get it.

20 THE COMMISSIONER: No, the Registrar will
get it for you.

Before you get to that, blood doping is not
in this document, it is the IOC --

THE WITNESS: Yes, it is.

25 THE COMMISSIONER: But it was not in when

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you started your work; is that right?

THE WITNESS: No, it wasn't, no.

MR. ARMSTRONG:

5 Q. All right. Now, looking with me, if

you will, at Exhibit 18, the document is headed:

"Definition of Doping and List of Doping Classes and
Methods." And if I read through this document, I don't

10 find -- and you and I did it together yesterday -- the
definition of doping expect what appears on the very first
page under the heading "Note", it says:

"The doping definition of the IOC

Medical Commission is based on the

15 banning of pharmacological classes of
agents."

Right?

A. That's correct.

20 Q. And would you agree with me that that
definition in itself is incomplete because if you read it
as a layman, as a lawyer, whatever, it doesn't really even
take into account blood doping and other banned practices?

25 A. Well, on this particular document that
I have actually it has -- I see the definition. If you
take that per se, no, it doesn't. It doesn't talk about
banned practices and manipulations. Although they have

them listed under doping methods here.

Q. Yes. Okay. Now, again as I understand it, at least at the present time the International Olympic Medical Commission has not been able, apart from listing banned practices, listing banned substances, been able to agree upon a global, all encompassing definition of the word "doping". They simply say --

THE COMMISSIONER: What about the next paragraph, though, does that following list represents examples.

MR. ARMSTRONG: I know. But what I am going to suggest to Dr. Gledhill is this that really all the IOC is doing at the present time is simply giving you a list of classes of doping substances and saying thou shall not use them, and then they give you a couple of doping methods, blood doping, and then these other things such as it says pharmacological, chemical, and physical manipulation and say thou shall not do that.

THE COMMISSIONER: I am puzzled, I don't think anything turns on it. The following list represents examples of the different doping classes to illustrate the doping definition. Unless indicated all substances belonging to the banned classes may not be used for medical treatment even if they are not listed as examples.

MR. FALBY: If it assists, Mr. Commissioner,

I think you have to look at the top of the page as well
which commences Doping Definition of the Medical
Commission of IOC --

5 THE COMMISSIONER: But Mr. Armstrong's point
is that there is no -- normally you and I are used to a
sort of a definition up here. We have a list of banned
practices.

MR. FALBY: Exactly. I would have read the
Doping Definition --

10 THE COMMISSIONER: To be the banned drugs?

MR. FALBY: As including items one, two and
three.

THE COMMISSIONER: All right.

15 MR. ARMSTRONG: All right. And I agree with
Mr. Falby on that. I think that that is what it comes
down to, but -- and your observation, sir, I think is
correct. You don't see what we traditionally as lawyers
see a definition and then what the examples are that
follow. And I agree that nothing turns on it. But I
20 just wanted to clarify it.

Q. Then I wanted to go back with Dr.
Gledhill, as I will now, and suggest to Dr. Gledhill that
this was not always the case and that indeed as recently
as the 1976 Olympics, the IOC Medical Commission indeed
25 did define doping in a way that at least we as lawyers and

laymen would expect that such a term would be defined?

A. That's correct.

Q. And indeed in one of your papers that we have marked as an Exhibit, we can find what that definition is; am I right?

A. Yes.

Q. And can you point us to that, please.

A. Blood Doping and Related Issues. I am not too sure -- I don't have the Exhibit number listed on mine here.

Q. Exhibit 59.

A. It's 59, and it would be then on --

Q. I think it's the fifth page. These pages aren't numbered, but it's the fifth page in.

A. And it would be in the left-hand column, under Subject Safety, Soping Controls and Ethical Considerations. And if you move to the second paragraph.

Q. Just stop for a minute.

A. Okay.

THE COMMISSIONER: The fifth page, is it.

MR. ARMSTRONG: Yes.

THE WITNESS: And there is a title in the left-hand column, Subject Safety, Doping Controls and Ethical Considerations. The second paragraph under that which starts "Although".

THE COMMISSIONER: Yes.

THE WITNESS: And then about halfway down
that paragraph.

MR. ARMSTRONG: Why don't you just read
5 that paragraph and we will get the whole thing in context.

THE WITNESS:

"The definition of doping that is the
basis for doping control programs at
the Olympics prohibits 'the use of
10 physiological substances in abnormal
amounts and with abnormal methods with
the exclusive aim of attaining an
artificial and unfair increase of
performance in competitions'".

15 MR. ARMSTRONG:

Q. All right. And if we look at footnote
10, you have taken that from an IOC Medical Commission
booklet authored by R. Dugal and M. Bertrand. And R.
Dugal is the same Dr. Robert Dugal who is the head of the
20 INRS Lab in Montreal and presently a member of a
Subcommission of the IOC Medical Commission.

A. That's correct. I have listed it here
as a booklet; it might also be described as a brochure.

Q. All right. Okay. Now, I have perhaps
25 taken too much time with the doping definition and indeed

may have appeared at this stage to have taken it a little out of context, but we are going to come back to it.

What I want to do now, Dr. Gledhill, is take you to blood doping and would you just in your own words
5 reduce to those of the laymen, if you will, tell us what blood doping is and then I am going to ask you about your initial study after that.

A. Okay. What blood doping is -- there are two ways of actually accomplishing blood doping. One
10 of them is to take blood from a matched donor and to introduce that blood into a recipient, which creates a high level of red blood cells. The second technique --

Q. So, that if I wanted to blood dope, I would find somebody that had the same --

15 A. Blood type.

Q. -- blood type as I and?

A. Take a unit of their blood and transfuse it into you.

Q. Okay.

20 A. Alternatively, if you use the person's own blood you remove the blood from the donor, you treat it, you actually separate the cells from the fluid and you treat it with a preservative technique and then you freeze preserve that blood for an extended period of time. And
25 you can freeze preserve blood --

THE COMMISSIONER: Is it still in plasma form, or what does it look like?

THE WITNESS: It's just the cells at that point. You have taken the plasma off --

5 THE COMMISSIONER: So a lab would have to do that?

THE WITNESS: That's correct, the Red Cross laboratories, there are about three or four laboratories in Canada that have that capability.

10 THE COMMISSIONER: Okay.

THE WITNESS: You then freeze preserve it. It's very important that you freeze preserve it. When I talk about my study, I will tell you why.

Subsequently, at the time you want to reintroduce it, you thaw it, you put back some fluid with it, to reconstitute it to a normal hematocrit, that is level of blood cells you would normally find in the fluid, and you then reintroduce it back into the person who originally gave the blood. That person then gets rid of the extra fluid and ends up with a higher than normal level of red blood cells.

15

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Now, the reason that you do that --

THE COMMISSIONER: Who would be capable of doing that? It seems to be quite a significant medical procedure, scientific procedure?

25

THE WITNESS: It is, definitely. As far as taking the person's own blood and processing it and storing it and then reinfusing that, you definitely would need considerable assistance to do that. As far as taking
5 somebody else's blood and providing it to another person --

THE COMMISSIONER: That would be easier?

THE WITNESS: That would be considerably easier.

10 THE COMMISSIONER: Go ahead.

THE WITNESS: When you have -- the limiting factor, what allows an endurance athlete to be able to perform well, is how much oxygen they provide to their tissues. And the amount of oxygen that's provided is
15 based on the amount or the the number of red blood cells or amount of hemoglobin in the blood. So, if you can provide additional red blood cells each time the heart pumps, then you can provide more oxygen to the tissues and you can therefore allow the person to exercise more
20 vigorously or longer so that you can enhance endurance-type performance. So the idea is to increase the level of red blood cells which is the term induced erythrocythemia high blood cells in order to provide more oxygen to the working muscles which enhances endurance
25 performance.

MR. ARMSTRONG:

Q. Let me just stop you there. When you say endurance-type athletes, I take it one thinks of long-distance runners?

5 A. That's correct.

Q. Cross-country skiers?

A. Yes.

Q. Anybody else or are those the principle ones?

10 A. Any activity that takes a long period of time. For example, a soccer player over the course of a game, a hockey player there could be an advantage to. So it -- a swimmer who is in a long distance swimming event. So any endurance activity it would be an
15 advantageous to.

Q. Ms. Chown points out that I have missed the obvious one, cycling --

A. Cycling.

Q. -- is another sport.

20 A. That's correct.

Q. All right. Okay. Now, you set out in 1978 to do the research project that is described in Exhibit 58.

THE COMMISSIONER: Was that as a result of
25 the cyclists that you told us about earlier?

THE WITNESS: What prompted this?

THE COMMISSIONER: What prompted your study?

THE WITNESS: It was well before the
cyclists. This was done in '78, the cyclists actually
5 were in 1894.

THE COMMISSIONER: What prompted this in
your own --

THE WITNESS: There are two main reasons
why I was interested in blood doping or blood boosting or
10 blood packing, as it is termed.

As a scientist, it's a very useful technique
to try and determine what is the limiting factor in
exercise, that is there are training implicationa for
that. There are all kinds of implications, physiological
15 mechanisms that we can determine.

THE COMMISSIONER: Were you considering it
as sort of a legitimate use eventually if you found out
how to do it?

THE WITNESS: Yes. In fact there is a
20 legitimate use for it. And the position paper that the
American College of Sport Medicine has put forward
indicates that for scientific research purposes there is a
legitimate use but for performance enhancement it's
definitely opposed to do it.

25 THE COMMISSIONER: But your study really was

an experimental study?

THE WITNESS: Oh, it definitely was but I was interested in what the effect was physiologically. I was also interested in whether or not it did enhance
5 performance.

At the time that we undertook the study, there were several reviews in the literature which indicated that blood doping did not work, it did not enhance performance. Theoretically it seemed to me that
10 it should, and so we set about trying to see if there was a problem with all of the studies that had been done to that time.

THE COMMISSIONER: All right.

THE WITNESS: Now, this study was done at
15 the Hospital for Sick Children with researchers there. And we were able to determine that the major problem with previous studies was the fact that they had not actually achieved a significant increase in the amount of red blood cells.

20 THE COURT: I don't mean to to interrupt you, but were you trying both by inserting somebody else's blood in as well as the old blood or just using your own blood?

THE WITNESS: No, we would not under any
25 circumstances for the purposes of research transfuse a

matched donor's blood into a recipient.

THE COMMISSIONER: So, it was the second way
of doing it?

THE WITNESS: It was the second way

5 THE COMMISSIONER: Of withdrawing blood?

THE WITNESS: That's correct.

THE COMMISSIONER: And treating it and
putting it back in?

10

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20

25

A. Exactly. In the case of matching blood, for life threatening situations, it's condoned because the person is liable to die if you don't give them the blood.

5 But in spite of every effort that is made to check whether a blood is compatible, whether the blood contains viruses, whether there is hepatitis that could be tranfused, whether there's AIDS, whether there's syphilis gonorrhea. These things are not fool-proof and so to use
10 this for normal, healthy individuals it would be completely unethical. And, so, it would not be tolerated by a human ethics committee.

THE COMMISSIONER: You wouldn't be doing all the testing that was done by, say, the Red Cross?

15 THE WITNESS: That's correct. The Red Cross would do that but in spite of that, now and again, things are transmitted. Hepatitis, for example. So that technique could not be used by a scientist. It's not allowed by the human ethics committees.

20 So at the time then it appeared that blood doping did not work, but we felt that it should work. We also knew that the way that they were storing the blood was to refrigerate it, as is normally the case when you give a unit of blood now at a blood bank or a blood donor
25 clinic. It goes into the refrigerator. It's stored like

the milk is stored at the same temperature.

THE COMMISSIONER: In the same ---

THE WITNESS: In the plastic containers.

The same when they take it out of the bags.

5 THE COMMISSIONER: The same substances.

THE WITNESS: Exactly. /.

MR. COMMISSIONER: I see.

10 THE WITNESS: So they simply put the bag in
the refrigerator. It has a shelf life, and as it sits in
the refrigerator, the cells degenerate.

THE COMMISSIONER: It would be in the same
liquid form?

THE WITNESS: Yes, it would.

15 THE COMMISSIONER: But you're going to do
something else to it, aren't you.

20 THE WITNESS: What I'm talking about now is
that previous to our investigation the way people stored
the blood was to refrigerate it in its normal form, and it
deteriorates during that time and you lose a number of the
cells.

25 In addition to that, you can only
refrigerate blood for a period of three weeks in North
America, in Scandinavia it's four weeks. So you must
reintroduce the refrigerated blood after three weeks. But
at the end of the three weeks, the person who gave that

blood has not yet returned their blood to its normal level so they're already a bit low. So what you end up doing is putting in blood which has deteriorated, in which some of the cells have died, into somebody who is a bit low to
5 begin with, and so, in effect, it wasn't possible using the techniques that were used in the studies previous to us to actually, significantly increase the level of hemoglobin. So what we did -- it was brought to our attention by the people at Sick Kids Hospital -- that this
10 other technique for storing blood blood, the freeze preservation technique, would allow you, first of all, to store it for an indefinite period of time, so you could ensure that the recipient had come back to normal before you reinfuse it.

15 Secondly, when blood is frozen, it does not degenerate. There is a loss of a small percentage in the handling, but the cells do not die. Effectively, their life is interrupted, and if a cell is -- a cell life normally is 120 days. If a cell was 100 days old when you
20 refrigerate it, it will live 20 days after you thaw it. If it's one day old, it will live 119 days. So you then, using this technique, which was the major advance that we made, we were able then to significantly elevate the level the of hemoglobin in red blood cells. Hindsight is always
25 20-20. We could look back at all the studies that had

been done and all the shortcomings and devise the optimal study, which we were easily able to do at that point.

We looked at the effect of taking a group of athletes, and we needed athletes because we had to see whether or not it did enhance performance. And what mechanism was from the scientific point of view. So we took a group of athletes, we took blood out, we took two units of blood.

10 MR. ARMSTRONG:

Q. Can I just stop you there?

I'm not going to ask you specifically who they were, but I note in Exhibit 58 in the right-hand column, down at the bottom, you say:

15 "The subjects were highly trained male track athletes of national or international caliber who participated in the study with informed consent."

A. That's correct.

20 Q. I want just wanted to make one other point. As I understand it, that when these particular athletes participated in your study they were not in there usual competition season, that is that you're going to tell us that they ended being blood doped, but you then
25 didn't send them off to some competition to run against

other countries?

A. No, these athletes -- it was in the training season, non-competition season and they were actually all asked to give us their competitive season
5 schedule for the entire year. All of the decisions were made in respect to that to make sure that, first of all, blood doping wasn't banned. People felt it didn't work, but I personally felt it was a problem. So to avoid that problem we decided to make sure that we would not
10 interfere with their schedule. So every attempt was made to do that.

But we need this calibre of athlete because if we're going to find out whether it works we have to have people who are working at that level. Otherwise, we
15 will never know whether it's going to enhance performance.

We had these 11 athletes it was. They were divided into two different groups. We, first of all, took out the blood, two units of blood, which is 1000 ml, which is one fifth of a total blood volume of each of those
20 people. Processed it, froze it, stored it at the Red Cross blood transfusion service here in Toronto. It was kept for a storage for a period of approximately ten weeks. At the end of that ten weeks, we had done a number of studies on these athletes to make sure that they were
25 back as far as their blood levels were concerned, as far

as their performance was concerned, as far as their capacity was concerned. So they looked, prior to reinfusion, exactly as they did before we took the blood out.

5 Half of the subjects we gave their blood back and half of the subjects we gave saline, a placebo. It was a blind investigation. They wore goggles, they wore ear phones so they could not get any clues as to whether they had received the blood or not. Half of the
10 people got it on the one occasion, and then sometime later, a couple of months later, the other half of the people got it. We looked again at all of their capacities following the reinfusion of the blood. Following it for immediately after, 24 or 48 hours a week and then for the
15 next 16 weeks, in fact, until all the additional cells had died off.

 Q. This is, I guess, what is known as a double blind study, and as you as the director of the research project, you didn't know, I take it, who got
20 what?

 A. To tell you the truth, the two people who were doing all of the reduction of the data, who had all of the possibilities of perhaps influencing the data had no idea who had the blood. I did, as the director of
25 the study. But the students -- my Masters students who

were involved at that time had no idea who received blood on which occasion. Just the physician, Dr. Alison Froese, who I was working with and myself were aware of who got it. and it was very important that the person we had to ***** verify that they were getting their own blood back, no possibility of improper matching and so on. I had to definitely know.

Q. Somebody had to do know?

A. Exactly.

So the investigators who could have influenced the results, who were encouraging the athletes on the treadmill, for example, who were producing the data, they did not know who had blood and who did not have blood. The results were that the -- definitely we significantly increased the level of red blood cells and the hemoglobin and therefore the capacity to carry oxygen. And overnight we had a five per cent increase in the capacity to perform work.

In addition ---

Q. What does -- does that mean exactly what it says?

A. It does. That's exactly what it means. It's the ability to utilize oxygen which defines your capacity to do endurance-type work. So the maximal capacity to use oxygen was increased five per cent

overnight.

Now, just to put that into some perspective,
an athlete, a national level athlete, might work for an
entire year to get an increase in their capacity to work
5 and their maximal oxygen uptake of five per cent.

Overnight, by blood doping we could achieve
the same result.

When we, then, put these people onto a
treadmill and ran them to exhaustion, they ran 35 per cent
10 longer.

Now, what that translates to when you put
them on a track, and they have to run faster on the track,
and under those competitive situations it definitely would
not be 35 per cent. But subsequently, people have, using
15 the same storage techniques that we introduced, have
duplicated our studies and, in fact, they have found that
time on the track was also a significantly improved.

So 5 per cent improvement is a huge
improvement, an overnight improvement, that which you get
20 with an entire year of training.

Q. All right. I just want to -- I'm going
to come back and develop what happened after you wrote
your article, but I wanted to make reference to your
second article, Exhibit 59, "Blood Doping and Related
25 Issues: a Brief Review" -- and I'm sorry, perhaps, before

I do that, have we got the guts of your study, as it were, what you did and what it showed. Is there anything more than we should know. I know that we can read your article, but I'm sorry, I may have cut you off?

5 A. No, I think that's implications for doping and doping controls. I think we're going to talk about, yes.

 Q. No, we are. Okay.

 Now, taking you to your second article,
10 Exhibit 59, "Blood Doping and Related Issues: a Brief Review." If I could take you the to the fifth page, and again, going to that reference that you drew the Commissioner's attention to about the definition of doping, when you did this study in -- you this study in
15 1978, and I guess the publication of it to the professions and others was 1980?

 A. That's correct.

 Q. But when you actually did the blood
20 doping study in '78, it obviously was your view that the doping definition of the 19 -- 1976 games applied being:

 "The use of physiological substances in
abnormal amounts and with abnormal methods
with the exclusive aim of attaining an
artificial and unfair increase in
25 performance in competitions."

Was it your view at that time that blood doping was caught by that definition?

A. Definitely, that was my feeling.

THE COMMISSIONER: But it could not be
5 detected, was that the problem.

THE WITNESS: That's correct, it could not be detected. I think we'll talk about that ---

MR. PROULX: Later on.

THE COMMISSIONER: At that stage.
10 "However, the IOC recognizes that it can ban only those doping agents for which suitable analytical methods can be devised for unequivocal detection."

That was the response to your position,
15 in essence?

MR. ARMSTRONG: We're going to come to that, Mr. Commissioner, in some detail because Dr. Gledhill is going to tell you about a meeting that he had with the Chairman of the IOC Medical Commission but if we could
20 just take that, in a few moments, I'd like to stay with the article because....

MR. ARMSTRONG:

Q.following along the bottom
25 left-hand column on the same page, you say;

"A consideration of the similarity between blood doping and altitude acclimatization complicates the issue of controls in doping studies.

5 Athletes who reside at sea level are at a disadvantage when competing in endurance events at altitude.

10 However, due to an increased hemoglobin, altitude residents are not at an equal disadvantage. For this reason, many athletes were taken to altitude in the weeks prior to the Mexico Olympics to gain the benefits of altitude acclimatization. Some even resided at altitudes higher than Mexico City to increase their hemoglobin and, even further, and gain an added advantage. This practice was not banned by the IOC."

15

20 Now, first of all, I take it that even today an athlete can still train at high altitude and maybe achieve some of the same benefits that he now can't achieve by blood doping because it's banned?

25 A. Yes. You have to go through a series of manipulations but, yes, you can do it that way. That is -- the problem is when you're living at altitude, you

can de-train because you cannot work as hard.

So, what they do is they have them live at altitude and they helicopter then down each day to train at sea level and then they fly them back night to live at altitude.

Or, you have people live in a hyperbaric, in a chamber, and exercise in that chamber. There are ways of getting around that.

If you just went and lived at altitude and trained at altitude, the detraining effect, because your capacity is limited at altitude, offsets the benefit of the increase in red blood cells, to some extent; not totally.

Q. All right. And what would your view be as an educator, an academic, a researcher in this field as to whether -- that there is some ethical consideration about training at altitudes or training in the way that you've described, going through these manipulations?

A. I suppose because it has been commonly practiced by most countries at some point in time, and specifically as it relates to the Mexico Games, then it has been accepted universally as an ethical practice. It has not been unethical.

Q. Okay. Then going down the page, on the right-hand side, last paragraph, we'll get into the issue

that you and the Commissioner were just discussing;

"A major problem confronting the IOC is that it is presently not possible to determine whether or not an individual has engaged in blood doping.

Although the determination of hemoglobin is a simple procedure, as yet there is no test that can establish where the measured hemoglobin is the athlete's normal level or whether it resulted from either altitude acclimatization or blood doping.

Presumably, it is for that reason that the IOC to date has not acted to control blood doping at Olympic competitions.

Moreover, over the the Chairman of the Medical Commission, Dr. A.H. Beckett, was quoted, prior to the 1980 Olympiad, as saying 'Nothing will be done to stop blood dopers.'"

Now, perhaps moving ahead a little bit, but what is the state of the art about testing for blood doping? Can you test for an athlete who has blood doped in the way that your research project has described?

A. As indicated here, it's fairly simple

to take a blood sample and determine that a person has a high level of hemoglobin but trying to tell why it's high is where the problem lies.

5 At the present time, the state of the art, there is an individual, Dr. Bo Berglund, a Scandinavian ---

THE COMMISSIONER: What's his name? I think the reporter has to get this down. I didn't get the name?

10 THE WITNESS: Dr. Bo Berglund, B-E-R-G-L-U-N-D, who is working on a technique to detect blood doping. Now, the technique requires taking a blood sample, which is quite different in the present doping control which is strictly urinalysis, and it -- the sophistication ---

15

MR. ARMSTRONG:

Q. There I suppose you run into the problem of ethical, religious ---

A. Exactly, yes.

20

Q. ---questions?

A. That's correct, and that's being debated right now as to whether that will ever been the case as to whether we can ever take blood samples.

THE COMMISSIONER: Yes. What happens?

25

THE WITNESS: From a profile of a number

of ---

THE COMMISSIONER: Trying to measure the amount of red....

5 THE WITNESS: That red blood cells, that part is fairly easy to do. The problem is trying to find out why it happens to be high.

THE COMMISSIONER: Everybody hasn't got the same count, anyway.

10 THE WITNESS: No, but if it's beyond a certain level, that is unexpected and what is the reason that it is beyond this particular -- why is it at an unexpected level?

15 So, he has now developed a profile of blood from -- which looks at certain hormones and other factors in the blood, which if there were 20 people that we were trying to defect for blood doping, and ten of them had, in fact, been blood doping, he would be able to identify positively five of the ten who had been blood doping.

20 He would never falsely accuse any of the ten who had not blood doped, but he would only catch five of the ten who had blood doped. That's the state of the art at the present time.

THE COMMISSIONER: You've lost me; it is my fault. He is still looking for the amount of red cells?

25 THE WITNESS: That's one of the things he

would look at.

THE COMMISSIONER: He finds that and he sees the number?

THE WITNESS: That's correct.

5 THE COMMISSIONER: He knows what would be normal, I guess.

THE WITNESS: Right.

10 THE COMMISSIONER: And he now said, well this -- I should look into this and find out why this is so high. I am sort of going through ---

THE WITNESS: Essentially, yes.

THE COMMISSIONER: What does he do with it? Without knowing what all this was, could he ever do anything about it?

15 THE WITNESS: There are several other components in blood that he looks at.

THE COMMISSIONER: I see, right?

20 THE WITNESS: Hormones and other components and from a total profile of these various constituents of blood ---

THE COMMISSIONER: He's got ten samples?

THE WITNESS: Right. So...

25 THE COMMISSIONER: And how does he distinguish one from the other? You have got it down to five, somehow?

THE WITNESS: What I said is that if he had -- let's say there were 20 people who he was asked to test.

THE COMMISSIONER: Right?

5 THE WITNESS: And we knew that ten of them had been involved in blood doping and we wanted to find out how successful this new technique was.

THE COMMISSIONER: You have known and unknown?

10 THE WITNESS: That's correct.

THE COMMISSIONER: You've got two known factors, those who have done it and those who have not?

THE WITNESS: That's correct.

THE COMMISSIONER: All right.

15 THE WITNESS: We take blood samples from all these people, we give them to Dr. Berglund and, at that point in time, the accuracy of his techniques, the sophistication of the technique is such that he would be able to identify positively five out of the ten people who
20 had been involved in blood doping.

THE COMMISSIONER: Right.

THE WITNESS: He would never falsely accuse any of the ten who had no been, but he's not capable of finding all of the ten who had been, only 50 per cent.

25 THE COMMISSIONER: When you say falsely,

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what it means, he finds that ten did not?

THE WITNESS: That's correct, and the correct ten.

THE COMMISSIONER: The correct ten, okay.
5 Of the ten who did, he can only be definite about five?

THE WITNESS: That's correct. That's it.

THE COMMISSIONER: Is this a good time to have a break?

MR. PROULX: Yes.

10

--- Recess

--- Whereupon resuming

THE COMMISSIONER: Mr. Armstrong?

15

MR. ARMSTRONG:

Q. Thank you, Mr. Commissioner. Then, Dr. Gledhill, I just wanted to make brief reference to your third article that we've marked as Exhibit 60, the effect
20 of graded erythrocythemia on cardiovascular and metabolic responses to exercise, what in layman's terms again was this particular paper written in regard to and what, if anything, did it add to the body of knowledge about blood doping?

25

A. When we first started spreading the

word about our initial study, it was immediately claimed
as being the definitive research on that topic and then
people started to say, well, if two units will improve
performance by five per cent or capacity by five per cent,
5 then three and four and five units perhaps will makes
tremendous improvements.

THE COMMISSIONER: Two units is one-fifth of
the total blood supply?

THE WITNESS: That's correct, that's 1,000
10 ml's. There is 500 ml's in each unit.

THE COMMISSIONER: You have got to be
careful about taking too much out of it.

THE WITNESS: That is what the problem was.
So, there was great concern that people then took this
15 idea and started using it, and before it was banned, that
they might jeopardize their life.

So, we looked at, in using two and three
units of blood, does that cause physiological
complications, again studying the function and the
20 processes of the body. Are there any -- is there a
compromise of the cardiovascular system when a person ---

THE COMMISSIONER: Your experiment was use
two, is that right?

THE WITNESS: In the first one, we used
25 two. In this particular one, we used two. We actually

put in one, then a second one and then a third one,
looking each time as to whether or not it was a causing a
medical complication, a compromise of the cardiovascular
system. Was the blood pressure increasing, for example?
5 Was the heart failing, these types of things.

So, it was a evasive medically-oriented
study that had to prove the point as to whether or not ---

THE COMMISSIONER: At the point of
withdrawal?

10 THE WITNESS: No, this is after the person
had each of the units back. So, we took the blood out,
stored it, brought them back to normal and then we refused
first one, then second, then the third over about a week's
period of time so see progressively what happened to the
15 athletes.

THE COMMISSIONER: I see.

THE WITNESS: And, in fact, with the level
at that level, with two and three units of blood, there
was not any medical complication whatsoever.

20 Now, we know that definitely if people use
four acfive units of blood, then they would get to very
high levels of hemoglobin and people, for example, who
live at very high altitudes end up with heart failure if
they do not keep their hemoglobin low and they actually
25 have blood taken out on a regular basis in order to keep

the viscosity, the thickness of the blood down with reasonable levels so it does not cause heart failure.

What we found out is within two to three units of blood, did not cause any compromise of the cardiovascular system.

MR. ARMSTRONG:

Q. All right. And in any event though, if an athlete were inclined to blood dope by using, say.

Only two or three units and thereby increasing his capacity, as you say by virtually overnight, by something like five per cent, in order to accomplish it, he would have to have it done in the scientific way that you have described or else he would find himself running into all kinds of complications which we may well hear about when we get to the U.S. cyclists who did it and perhaps in an unscientific way?

A. Potential complications, that's correct.

Q. Now, having gone through with you the -- what blood doping is and what it accomplishes, I want to take you back to after you had finished your 1978 research, you knew the results of it, you knew that indeed blood doping worked.

It was your opinion, as you've indicated,

that it was contrary to the then existing definition of doping as annunciated for the 1976 Olympics.

What did you do, at the sport level if I can call it that, to spread the message of the results of your research.

THE COMMISSIONER: Let me ask you this, though, before that have you any reason to believe that this was being done in some places?

THE WITNESS: There was a lot of published rumors. A fellow by the name of Lassie Viren who was a runner from Finland, who was supposed to have been involved in blood doping. There were many, many reports that he had been using this so that there were a lot of speculations that people were using the technique.

THE COMMISSIONER: I see.

MR. ARMSTRONG:

Q. And he was the one in the 1976 Olympics, as I recall, who ran almost every long distance raise available?

A. Not quite that many.

Q. And ended up as a medalist, if not the gold medalist, in every one?

A. That's correct, he was extremely successful.

Q. All right. What, if anything, did you do about it?

A. Well, certainly did a lot of talks and various publications to make sure that people were aware of the situation. Wrote articles specific to my feeling about that it was, a doping technique ---

THE COMMISSIONER: May I interrupt for a moment, though, because we have heard on other drugs, we have heard two fundamental reasons for banning; one the ethical problem and the other a health problem?

THE WITNESS: Correct.

THE COMMISSIONER: From what I gather so far from what you have said, there is no health problem in this issue?

THE WITNESS: What I actually said was with two or three units, there appears to be no health problem. We know definitely ---

THE COMMISSIONER: More than that, there would be.

THE WITNESS: More than that, there would be. If people then carry it to this final end where they're taking four or five units, then we could end one death.

THE COMMISSIONER: But those who facilitate this type of a practice for the purpose of enhancing

performance, they have to be quite -- we are looking for quite professional people, aren't we?

THE WITNESS: If they are ---

THE COMMISSIONER: Either a doctor or
5 somebody close to it and a chemist or somebody close to it?

THE WITNESS: That's correct. In order to access the type of facilities and do the kinds of manipulations, they would have to be. Unless they simply
10 took blood from one person and gave it to another with the potential medical complications.

THE COMMISSIONER: Right. You have told us the dangers of that.

THE WITNESS: That's correct.

15 THE COMMISSIONER: I am sorry. Now, what did you do about it? I interrupted, Mr. Armstrong, I'm sorry.

MR. ARMSTRONG:

20 Q. You've told us that you got out on the road, as it were, and started telling ---

A. Preaching the gospel.

Q. Preaching the gospel and, in particular, I want you to tell us about a meeting that you
25 had in about July of 1979 with the Chairman of the IOC

Medical Commission?

A. It's actually July of '78. It was Arnold Beckett is the Chairman of the IOC Medical Commission.

THE COMMISSIONER: He's in Chelsey, England,
5 is he not?

THE WITNESS: That's correct. And, I met
with him in his office and presented to him the
information which was, at that point in time, acknowledged
widely as being the definitive information, that blood
10 doping definitely enhances performance.

He agreed that the evidence was conclusive
in his mind. He also asked me if we were able to detect
blood doping and I said no, as is still the case. And he
said, well, for that reason, we will not ban it.

15 Now, I, at that point in time and
subsequently, argued with him at the very least, if you
put blood doping on the banned list, it then becomes an
ethical decision. The person knows they're cheating and
we should at the very least do that. And you'll note in
20 one of the articles ----

THE COMMISSIONER: And those that are
assisting to know that they are involved in something like
that.

THE WITNESS: Exactly. Everybody knows
25 that it's cheating at that point in time. But he felt,

nevertheless, until it could be detected that it should not be put on the banned list. He made statements actually which were quoted widely that it would not be tested for or banned.

5 THE COMMISSIONER: Was he also aware that there was some opinion around that it was being used?

THE WITNESS: Undoubtedly. Everybody in the world was aware of the opinion.

10 MR. ARMSTRONG:

Q. Yet, it almost puts a focus on that unless you get caught or unless you can get caught, it shouldn't be against the rules or is that...

A. That's one way of looking at it.

15 Q. Is that a little bit unfair?

A. I think that's probably being unfair.

Q. All right.

A. In his opinion it was, if we can't detect it, then we can't really do a proper job of controlling it and, so, until such a time as we can detect, then we won't ban it.

20

That's not unusual. We've got other situations that we'll be talking about; soda loading, growth hormone, things that do not appear on the list that can't be defected right now so they have not been

25

officially banned.

So, it's not inconsistent at that particular point of view. Subsequent to this meeting ---

Q. Your view, obviously, is different than that expressed at that time by Dr. Beckett. You say that if it's wrong, whether or not you can test for it or detect it, it's wrong, it's cheating and we should let the athletes and those who serve the athletes, coaches, trainers, et cetera, know that that's our position?

10 A. Precisely.

Q. Okay.

A. Four years later, I was representing Canada, myself and Dr. Fowler from the University of Western Ontario, are the Canadian delegates to the International Sport Medicine Federation and we were attending a meeting in Vienna at which this was a special doping symposium that was put on the IOC Medical Commission.

20 And, as the voting delegates, we attended that meeting together and, at that meeting, I again, in front of the people from representing countries around the world, after the end of Dr. Beckett's presentation, again implored that we or that the IOC ban blood doping.

25 And again, he said, have you been able to find a detection technique yet? I said, no. And he said,

well, given that then ---

THE COMMISSIONER: I'm sorry, who were you speaking to?

THE WITNESS: Dr. Arnold Beckett.

5 THE COMMISSIONER: Again?

THE WITNESS: Again. He's still Chairman of the IOC Medical Commission.

MR. ARMSTRONG:

10 Q. And this is a meeting in Vienna in 1982 of the International Sport Medicine Federation which is a worldwide organization of sports medicine bodies?

A. That's correct.

15 Q. The SM -- the Sport Medicine Council of Canada would be a constituent member, I take it?

A. Yes.

20 Q. So '78 the answer was no; '82 the answer was no. I'm going to get to Los Angeles in '84 but, before I do that, I want to ask you whether or not as a result of the publication of your study in 1978 and, as a result of people talking about it in the athletic world, did any people express interest in it from the point of view of actually adopting and employing the technique of blood doping and seek out your assistance?

25 A. Yes. I had people who contacted me.

In particular, one individual who attempted to contact me a number of times by telephone and actually flew to Toronto to talk with me. This is ---

5 THE COMMISSIONER: What line of work was he in?

THE WITNESS: He was the coach, one of the more prominent coaches in the United States at the time. His name is Mr. Chuck Debus.

10 MR. ARMSTRONG:

Q. And his name is spelled D-E-B-U-S.

A. I believe so.

Q. Yes. And he is the coach of the, or was at the time, the Pacific Striders Track Club?

15 A. That's correct.

Q. And as I understand it, that is the one of -- is a well known track club in the United States and that he was a well known coach of middle distance and distance runners?

20 A. Yes, that's correct. Primarily the top athletes he had were female athletes.

Q. But he coached a number of international world class type athletes?

A. Yes, he did.

25 Q. Is that not so?

A. That's right.

Q. He then flew to Toronto to see you?

A. That's correct.

Q. All right. Tell us about that then?

5 A. Well, he wanted to -- he wanted information about blood doping and the information that was in the literature, I provided to him.

He also asked me if it was possible to bring his athletes to Toronto and have them blood doped and I
10 said definitely not; unequivocally no.

Q. All right.

A. Now, there was a followup to that and as I explained to you, I sometime, not long after that, I was vacationing in Florida with my family at a place that
15 I thought was unknown to anybody and somehow a hematologist from a hospital in Los Angeles, who was doing some work for Chuck Debus at the time, with some athletes, contacted me for some specific information about the handling of blood for blood doping.

20 Q. I see.

THE COMMISSIONER: Of course, at that time it was not yet banned?

THE WITNESS: No, it was not banned. There is no doubt about that.

25

MR. ARMSTRONG:

Q. And I take it your refusal to assist him in actually carrying out the practice of blood doping in regard to his athletes, was based upon your belief as already expressed, that it in effect was cheating?

A. That's correct. I felt very strongly that way. Just if I could read this once more, the use -- this is the doping -- again you brought this definition in;

10 "The use of physiological substances..."

For example, blood;

"...in abnormal amounts..."

Which we've talked about....

15 "...with abnormal methods..."

Which is obvious....

"...with the exclusive aim of attaining an unfair and artificial increase of performance in competition."

20 It seems to me that that description fits blood doping extremely well. But that view was not universally held, as we'll talk about with the U.S. cycling team.

Q. All right. Now, moving along, I understand that there was another approach to you,

although perhaps not one that you could identify so clearly because it was a telephone approach, but nevertheless, tell us about that, if you will?

5 A. It was a telephone conversation and I have no way of knowing if this person misrepresented themselves. They identified themselves as being a member of a national team of another country and they were going to be in the Toronto area and they wanted to know if they could get blood doped. And I laughed and said absolutely
10 not.

Q. Okay. Then let's move along to the Los Angeles Olympics. We know, Dr. Gledhill, that for the L.A. Games blood doping was not a banned practice but we also know, because reference has been made to it in the
15 evidence in passing at least, that after the Los Angeles Olympics it became a matter of public record that some members of the U.S. cycling team, indeed some who have won medals, had engaged in blood doping prior to their races in Los Angeles, is that right?

20 A. That's correct.

Q. And ---

THE COMMISSIONER: How was that discovered?

THE WITNESS: By admission.

THE COMMISSIONER: Of course, at that time,
25 it was not banned either?

THE WITNESS: No, it wasn't and these people felt and were convinced by the medical personnel and the scientists involved that it was not contrary to the philosophy and the ethics of cheating as well. And so they did it in all sincerity, thinking that it was not cheating.

Now, at the same time they all swore that they would not provide the information to anybody beyond ---

THE COMMISSIONER: Well, I guess Dr. Debus, if he was interested, would also be in a position, if it was not illegal, he may have thought it was not unethical, as well?

THE WITNESS: Exactly. Now, when Mr. Armstrong asked about -- as far as the information itself is concerned, there are a number lay publications that have provided information about this.

There has never been a scientific article that has gone into it so that we have a definite -- all the details and so on, except that I was also on a -- the panel, along with Dr. Ed Burke, who was the physiologist who worked with the U.S. cycling team to provide this, and it was essentially a panel of discovery and potential sanction to ---

THE COMMISSIONER: I am sorry. I am still

puzzled how it came out, just by admission or was anybody hurt?

THE WITNESS: There were three athletes -- that's not the reason it came out. In fact, we know that there were at least seven athletes involved. We know that three of those athletes became ill.

Rather than using the technique where you take blood out of the person, freeze it and then subsequently reinfuse it, they actually had people for whom they matched donors.

Now, the extent of the testing that was done to match the donors and the details, they're somewhat sketchy on that. It appears they may have done a basic matching of blood. But beyond that, they did not check for any possible communicable diseases and there's even some suspicion there was no matching of blood. And so, highly unethical; possibility of all kinds of complications.

The American Council of Sports Medicine convened a panel, which included myself and two or three other people who were involved in blood doping and Ed Burke, who was a physiologist involved with the U.S. cycling team, at a meeting shortly after this information became available, in front of a large group of people, and essentially we explored this whole thing.

He maintained all along at this meeting, vehemently, that it was not banned; because it was not named, it was not cheating, which is exactly what the point was in the first place. If you at least list it, then people have to cheat. He was able to convince the athletes that what they were doing was not cheating.

And so, there is a problem of not listing it as a banned drug, even if we know it fits a general definition of doping.

MR. ARMSTRONG:

Q. And just again from the basis of your knowledge, having read about the events at the time and having attended this panel where the U.S. cycling team physiologist was present, I understand the circumstances were that they simply got the members of the team together in a motel room somewhere close to the Los Angeles Velodrome?

A. That's correct.

Q. And they would have two beds side-by-side with the donor there and the recipient there and simply take the blood out of the donor and pump it into the cyclist, as it were?

A. That's exactly what they had admitted they did.

Q. And the donors tended to be family members?

A. In all but one case, they were family members and in the one case, rather than being a blood relative, it was the wife, a spouse.

Q. All right. And some of the people that were involved in this publically stated and publically known were, first of all, a cyclist list by the name of Steve Hegg who won a silver medal, a Mr. Leonard Harvey Nitz who was a bronze medalist, an Brent Emery, E-M-E-R-Y, who, I guess, wasn't a medalist but was a national champion in the U.S. and participated in the Olympics, and then a Rebecca Twigg who was a silver medalist in the women's road race and, in fact, lost the gold medal in a photofinish to a fellow team mate?

A. That's correct. Steve Hegg also won a gold medal, as well as the silver.

Q. I see. I take it, after it became known that this blood doping practice had been used by these several members of the U.S. team and indeed four of them -- or three of them had significant success as medalists and there must have been a hue and cry and, I assume you must have been part of that and you alluded to it earlier, and would you just take us through that as to what happened and how soon after blood doping became a

banned practice by the IOC Medical Commission?

5 A. Well, the committee on doping in amateur sport, when I -- initially, when you asked me to describe what the committee did, I indicated that advocacy was one of the main concerns or international lobbying.

 We immediately wrote letters to the American College of Sport Medicine, to the International Olympic Committee, to the United States Olympic Committee and to the Canadian Olympic Committee asking for their assistance
10 in this, abhorring what had been done and asking that blood doping be banned and that there be some sanction of the U.S. team.

 What happened within a very short period of time after that, was that blood doping was banned but
15 there was never any sanction of the U.S. cycling team members.

 Q. All right.

 THE COMMISSIONER: Well, I guess on the basis, it wasn't banned at the time?

20 THE WITNESS: That's correct. And in people's minds, in a lot of people's minds, it was not banned.

 THE COMMISSIONER: I understand.

 THE WITNESS: It was not cheating at that
25 time. There is no doubt now, though.

THE COMMISSIONER: Then they added it specifically to the new schedule?

THE WITNESS: That's correct.

THE COMMISSIONER: So, I gather that, as a
5 result of these efforts, that's when it was added?

THE WITNESS: Certainly our efforts, undoubtedly. Other people's efforts, we really don't know. We don't know if it was entirely due to ours or partially due to ours. Definitely, we would have had a
10 large hand in that. That is, we being the Sport Medicine Council of Canada's committee on doping.

MR. ARMSTRONG:

Q. And then looking at Exhibit 18, which
15 we have filed as the list of doping classes and methods, the -- under the heading, "Blood Doping," and I don't know if you still have a copy up there?

A. No, I don't.

Q. If I could just put that ---

20 A. I recall it was on there, though.

THE COMMISSIONER: The Registrar will give it to him.

MR. ARMSTRONG:

25 Q. Just look at the second page from the

back, second last page?

A. Yes.

Q. If we look at the third paragraph, the first two having described what blood doping is, it says;

5 "These procedures contravene the ethics of medicine in sport.

There are also risks involved in the transfusion of blood and related blood products.

10 These include the development of allergic reactions with rash, fever, et cetera, and acute hemolytic reaction, with kidney damage if incorrectly typed blood is used, as well as delayed transfusion
15 reaction resulting in fever and jaundice.

Transmission of infectious disease, viral hepatitis and AIDS, overload of the circulation and metabolic shock."

And I just wanted to ask you, I assume,
20 although you're not a physician but you're familiar with the literature and you're a sports scientist, particularly a physiologist, I assume that from your knowledge and study of the field, leaving aside the limitations that may be placed on a non-physician saying this, that you accept
25 that as an appropriate statement?

A. Yes, I do. In fact, this also is the same type of statement as in the position statement to the American College of Sport Medicine that was introduced earlier, exactly the same type of information.

5 Q. All right. In that statement indeed you are an unknown co-author of, now a known co-author?

A. Right.

10 Q. All right. Then Dr. Gledhill, I wanted to ask you one other question or two about blood doping and that is that Dr. Pipe, I believe it was, yesterday mentioned, I don't know whether you call it a drug or new substance, that apparently is now available, that can be used to obtain the same effect as blood doping.

15 And can you give us the benefit of your knowledge of it and is it banned and where should we be going with it, if it isn't?

20

25

A. The particular drug that you are talking about is erythropoetin. Now, this hormone is the hormone that is secreted into the body when a person resides at altitude. It's that hormone that causes the increase in hemoglobin that occurs when a person resides at altitude.

In the last -- approximately a year and a half ago, they were able to finally artificially manufacture erythropoetin. So, we now have a synthetic erythropoetin. It's not easily available on the market at the present time because it has to go through a whole series of tests before it can be accepted properly on the various schedules. It is going through that testing now, but within the next year it's my firm belief that that will be available. It's needed undoubtedly in medicine for people who have problems with anemia, and so it will be useful. In addition to that, it will be available.

Athletes -- now, we are also getting into a situation where there is no definitive research on erythropoetin. I am giving you my opinion now that if people take doses of erythropoetin, beyond their normal level, that we should be able to achieve a higher level of hemoglobin than normal. That's not proven. That has not been proved. And we need some definitive research to actually show that. We also, then, can assume that if

that's the case it would enhance performance. We need that information as well.

With that information in hand it then, I feel, behooves us, and in particular the IOC Medical Commission, to ban the use of erythropoetin.

THE COMMISSIONER: With the same difficulties of testing I gather, or this would be easier?

THE WITNESS: Actually, erythropoetin can be detected. The problem with erythropoetin is that it has a very short halflife, that is it does not stick around in a body a long time.

THE COMMISSIONER: I see.

THE WITNESS: That's the same problem with growth hormone. And so, the detection technique will be problematic.

We have made a suggestion, in fact, though, that in the case of growth hormone we -- when I say this I am talking now as past Chair on Committee on Doping -- that with growth hormone and erythropoetin, both of which are manufactured synthetically, that they could be labeled with a marker which then will show up in urine.

So, although there was no lasting presence of excess growth hormone or excess erythropoetin, we could have a lasting presence of a marker which would indicate they must have been using one of these two substances.

So, if we are able to ultimately get all countries to adopt the same type of principles and ethics, then we could have all manufactures label erythropoetin appropriately, a growth hormone appropriately, and then we would be able to detect and stop their abuse.

THE COMMISSIONER: Are we talking about the marker, you say that's added to the substance?

THE WITNESS: That's correct.

THE COMMISSIONER: Not outside the bottle?

THE WITNESS: No, no, it's a fairly simple technique to actually put a slight label on to something which shows up in the urine.

THE COMMISSIONER: Yes.

MR. ARMSTRONG:

Q. This would be to convince whoever the authorities are over drugs, to require the drug companies to ---

A. Exactly.

Q. -- put the marker in, as it were?

A. Exactly.

Q. Now, I appreciate that you are no longer Chairman of the Committee and you are no longer on the Executive of Sport Medicine Council of Canada, is, however, the Sport Medicine of Council of Canada, has it

yet taken a position in respect of this artificially
manufactured hormone to have it banned?

5 A. In the case of growth hormone, yes. In
the case of erythropoetin, as I said, that scenario I
provided is a speculation on my part that it will actually
enhance. I feel convinced it will, but we do not have
definitive evidence. The first thing that has to happen
is we have to have the definitive evidence and then I
think we should move to ban it.

10 Q. I see. So, someone has got to do the
kind of study you did in regard to blood doping?

A. Exactly.

Now, you and I have not discussed this, I'm
sorry, Mr. Armstrong.

15 Q. It's all right. Apparently I always
tell my witnesses never volunteer a word, but different
rules apply here.

A. That's right, don't ask a question if
you don't know the answer is, I think, what you suggested
20 to me.

You didn't say that.

Q. That was your lawyer, not mine, not me.

A. I have been asked on occasion, and
given that we have got this problem with blood doping, a
25 potential problem in the future with erythropoetin, is

there any way -- and we have got this semi-acceptable
technique for the detecting blood doping now where we can
get 5 out of 10 people.

5 MR. COMMISSIONER: I was going to ask you
about that, but that's also in a very experimental stage,
too?

THE WITNESS: Exactly. It might never be
completely successful. We don't know that yet.

10 THE COMMISSIONER: Well, the danger,
obviously, and I don't say that I understand, I was
wondering about this the other day.

One reading the articles which are done for
legitimate medical purposes, can get a lot of ideas as to
how to abuse it.

15 THE WITNESS: There is no doubt.

What I was saying, then, is given the fact
that we have the blood doping, we have the potential
erythropoetin problem, we have the altitude issue, which
most people would say is not unethical, how could we
20 possibly control this.

Now, what I am going to propose right now is
rather a Draconian method, but if we said that you could
not compete in the Olympics unless your hemoglobin is
below a certain level, then what it does is it immediately
25 does away with all of the problems that relate to blood

doping, altitude acclimatization, and erythropoetin has the potential problem as well. Simply by saying you must not compete, that you cannot compete at a certain level. It's very simple to actually bring people down to that level if they above it, but at least it would put everybody on the same level playing field.

Now, I think we would have some problems having that accepted by everybody, but ultimately ---

Q. First of all, you would have to draw blood from people ---

A. That's correct.

Q. So, ethical and religious problems right off the bat.

THE COMMISSIONER: It's a condition of competing. It's a condition of competing, if you don't want to compete --

MR. ARMSTRONG: You don't have to. Okay. Sorry, you were ---

THE COMMISSIONER: This is what you are saying? This would be a condition of competing?

THE WITNESS: That's what you would have to do, that's correct. I am just saying ---

MR. ARMSTRONG:

Q. No, I understand.

A. -- It's not all hopeless. In fact, if we really had to impose whatever kind of requirements that that could theoretically be done.

5 Q. Let me, then, just follow it up with a question or two. Is it not likely that athlete "A" naturally might have a much higher red blood cell level than athlete "B", and how do you -- where do you draw the line?

A. That's the question.
10 What we can do is keep everybody in the same level playing field as far as that particular blood parameter is concerned with which there are a number of concerns.

THE COMMISSIONER: That would mean that you
15 would lift some up and -- I would assume, from what you said, that you have a pretty good idea what would be a normally high ---

THE WITNESS: That's correct.

THE COMMISSIONER: -- red cell count. And
20 if you go along this, I think -- this is a rather ingenious approach. I think we are a long way from getting that.

THE WITNESS: I realize that. I say that.
A lot of people would abhor the idea.

25 THE COMMISSIONER: From what you are

saying, is for your studies, you would have reason to believe that you know what would be a high normal, high normal but higher than others, and you sort of set that at a high level. You can't bring everybody up to it because
5 then you are increasing my cell count to bring me up to something which is not my normal?

THE WITNESS: Right.

THE COMMISSIONER: You are enhancing my performance by bringing me up to somebody else's level?

10 THE WITNESS: Right. Which would be an even playing field though.

THE COMMISSION: But you are still enhancing my performance. I think you can say --

A. I am not suggesting that we actually do
15 bring everybody up to the same level. What I am saying is that people beyond a certain level should not be allowed to compete.

MR. ARMSTRONG:

Q. I wanted to follow that up and ask the
20 converse the proposition the Commissioner was putting to you because I thought you had said a moment ago that there are methods by which people can be brought down to the same level?

A. That's correct.

25 Q. So, if Mr. Proulx walks into the

swimming pool before a meet and he has got what appears to be a fairly high level, and I am just kind of ordinary, average level, you can bring him down to where I am at?

5 A. Simply by drawing blood. The logistics would have to be worked out. It would probably not be done the day of. We would have to prepare for it, but I am talking now about a theoretical possibility. I am not necessarily even advocating it. If it I am asked is it possible in any way at all to avoid all of these problems,
10 the answer is there as a possibility.

THE COMMISSIONER: This would be one way.

MR. ARMSTRONG:

Q. All right. Now, I want to move along to another practice and that is something in layman's
15 terms is called soda loading. And first of all, will you tell the Commissioner what is the practice known as soda loading?

A. In certain events, what are termed anaerobic performances, these are shorter events usually
20 up to two minutes in duration. Those would be the primary events. And two minutes in duration is the primary event where a person exhausts themselves maximumly in two minutes, in an 800 meter race for example. In those events, the reason for exhaustion is the buildup of lactic
25 acid, it is a byproduct of providing the energy to be able

to run.

With the buildup of lactic acid and in lay terms it effectively poisons the contractile mechanism of the muscles so that the person slows down they can not
5 continue running quickly.

Now, this is an acid that is causing this. If you had an upset stomach, you would take antacid indigestion take an antacide it buffers the acid or neutralizes the acid. And so it was reasoned then that if
10 you ingest sodium bicarbonate was is a buffer into the body. You can enhance the buffering capability, the neutralizing capacity of the body so that when the acid builds up, it neutralizes the acid just as the antacid does in your stomach. And so the acid then does not
15 poison the contractile mechanism and you can run a bit faster or a bit longer before you fatigue.

So, the idea is to ingest, in a few hours prior to the performance, a significant amount of sodium bicarbonate to enhance the buffering or neutralizing
20 capacity of the body so that you negate the effect of the acid buildup or at least you offset it somewhat which therefore would enhance performance in these type of what are termed anaerobic --

THE COMMISSIONER: Just by swallowing it?

25 THE WITNESS: By swallowing it simply.

THE COMMISSIONER: What about Tums, is Tums sort of a similar thing?

THE WITNESS: Yes. And Alka Seltzer, it has sodium bicarbonate in it, yes.

5 THE COMMISSIONER: Is that what's called soda loading?

THE WITNESS: Exactly.

THE COMMISSIONER: When did you take it?

THE WITNESS: Well, the --

10 THE COMMISSIONER: I mean do you just swallow it, just the bicarbonate in water?

THE WITNESS: You can do that. You can take it in capsule form. You would put sodium bicarbonate in the capsules and swallow --

15 THE COMMISSIONER: If you had an upset stomach. I mean I read all about this Tums is sold for that?

20 THE WITNESS: That's right. So, for your upset stomach you would take it not in capsule form you would take something which is an antacid as an effervescent in a glass and drink it then that would neutralize the stomach.

THE COMMISSIONER: That would make me run faster and longer?

25 THE WITNESS: If a person took a lot of

sodium bicarbonate in let's say a normal effervescent tablet something such as Alka Seltzer, would have about two grams of sodium bicarbonate in that large pill along with a lot of other fillers.

5 THE COMMISSIONER: For soda loading, how much do you take?

THE WITNESS: You would have to take the equivalent for a 70 kilogram person it's about 21 grams. So, you would have to take about 10 of these big pills in
10 order to get the value as far as offsetting this fatigue. That's just to give you an idea of what we are talking. But it wouldn't normally be done taking these commercial effervescent pills. It would be done in small capsules where it is concentrated sodium bicarbonate which is one
15 of the constituents of these pills. Then the idea is to take a number of these pills approximately three hours before the event so they have an opportunity to be absorbed into the system and to diffuse through the body's fluids and into the muscles and offset the buildup of
20 lactic acid.

THE COMMISSIONER: We have heard the word, I notice it is in one of Sport Canada's documentation.

MR. ARMSTRONG: I am going to come to that, but we can come to that --

25 THE COMMISSIONER: No, you do it the way you

are proceeding. I don't mean to interrupt you because the only place I read it was in that --

MR. ARMSTRONG: Exhibit 37, the update of the --

5 THE COMMISSIONER: It is not in the IOC banned practices.

THE WITNESS: No, it's not. It has not been named as a banned practice.

THE COMMISSIONER: It seems to be in yours?

10 THE WITNESS: That's correct, in the Sport Canada. Actually SMCC is independent of Sport Canada. So it's perhaps theirs.

THE COMMISSIONER: I know it is independent. I get the names confused.

15 MR. ARMSTRONG:

Q. Why don't we deal with that now, Dr. Gledhill. It is Exhibit 37, Mr. Registrar, if I could have that. Have you got your own copy there?

A. If I could find it in there.

20 Q. If you take Exhibit 37 and go to the second page under the heading Position Statement, and if you go to the second paragraph under Position Statement last sentence, they say:

25 "In addition, Sport Canada is opposed to any illegal and/or unethical

physiological manipulation (such as blood doping, soda loading, beta blockers, diuretics) employed for the purpose of performance enhancement."

5 Now, Sport Canada, in its policy, has indicated therefore obviously that it is opposed to soda loading but are we agreed that if we were to look at Exhibit 18, the IOC Medical Commission's definition of doping methods, we will not find soda loading?

10 A. That's correct, you will not find it there.

THE COMMISSION: Except I understand you would think it was covered by the former definition?

THE WITNESS: Exactly, exactly.

15

MR. ARMSTRONG:

Q. All right. Now, let me just ask you this. I understand that as in the case of blood doping, you did, together with one of your colleagues and with the assistance of the Hospital for Sick Children, a study of the effect of soda loading?

20

A. Yes, I did.

Q. And you published an article in Medicine and Science in Sports and Exercise in 1983, entitled Effect of Acute Induced Metabolic Alkalosis on

25

800-m Racing Time. The Registrar has a copy of this and
so do you, sir.

THE COMMISSIONER: I do.

MR. ARMSTRONG: Could we mark that as
5 Exhibit 62.

THE COMMISSIONER: Do you have one of these?

THE WITNESS: Yes, I have.

THE COMMISSIONER: I have two. 62.

10 --- EXHIBIT NO. 62: Article entitled "Effect of Acute
Induced Metabolic Alkalosis on 800-m
Racing Time" by Dr. N. Gledhill.

MR. ARMSTRONG:

15 Q. And then if we could mark a subsequent
article also that you wrote, Dr. Gledhill, you wrote an
article entitled Bicarbonate Ingestion and Anaerobic
Performance, and that was published in a publication
called Sports Medicine in 1984?

20 A. That's correct.

MR. ARMSTRONG: All right. Could we have
that as Exhibit 63, please.

THE COMMISSIONER: 63.

THE REGISTRAR: 63.

25

--- EXHIBIT NO. 63: Article entitled "Bicarbonate
Ingestion and Anaerobic
Performance" by Dr. N. Gledhill.

5 MR. ARMSTRONG.

Q. Now, Exhibit 62, the Effect of Acute
Induced Metabolic Alkalosis on 800-m racing time, that
really is the definitive research work that's described in
that paper, as I understand it?

10 A. That's correct.

Q. And a subsequent paper that we have
just marked as Exhibit 63 is kind of the overview of the
subject written for those of us who are non-scientific in
our approach to life?

15 A. Yes, it is actually for a
semi-scientific audience just so you know. That was the
description of that particular publication.

Q. All right. Now, going back to your
original research on the subject as revealed by Exhibit
20 62, again I am not going to invite you to use all the
scientific terminology that appears there or to take us
through it in detail, but in the same way that you did for
blood doping, can you tell us what the nature of the study
was, what you did, and what the results were?

25 A. In essence, we had a group of -- in

this case they were varsity athletes from York University, who on three occasions -- actually on four occasions, on one occasion they performed an 800 meter race with no drugs, no placebo whatsoever. On a second occasion they performed it after they had been given, without them knowing whether it was a placebo or a drug, a number of capsules prescribed for their body weight which would bring a certain level of alkalosis in the body, which is the -- a certain level of buffering capacity in their body.

On another day, they were given placebos. So, we had three conditions, the same six athletes, and they ran 800 meter races under competitive circumstances. One condition, no pills; another condition, pills which would induce this extra buffering; and another condition which was the placebo which would have no effect whatsoever.

They did not know which day was placebo, which day was the alkalosis or the buffering. In addition to that, the people who were using the stopwatches making measurements did not know which athletes had which on which days. And so it was a double blind study again.

Q. Yes.

A. The effect was that on the day that the athletes had the pills that increased their buffering

capacity, they ran between two and a half and three seconds faster over 800 meters.

Q. What does that mean in terms of 800 meters; is that significant?

5 A. Generally speaking, that would be the difference between first and last place in any major 300-meter race.

Q. Fairly significant?

A. Fairly significant.

10 Q. All right.

THE COMMISSIONER: What about 1,500 meters how they --

THE WITNESS: We didn't look at that and so I would have to speculate, make a guess to give you that
15 information.

MR. ARMSTRONG:

Q. Well, would you -- I think you are being too hard on yourself by saying you would have to speculate. You are a pretty highly-trained academic with
20 a lot of research experience, how about --

A. Taking a guess at it, my opinion.

Q. No, just giving us a reasoned estimate of what you think the effect would be on a 1,500-meter racer who had the benefit of soda loading?

25 A. Okay. I will preamble it a bit. When

we go from 800 to 1,500 meters, we are looking at at
different energy production pathway. As you move to the
1,500 you are getting closer to the endurance and so it
would not be as effective in a 1,500 meter race as it
5 would be in a 800-meter race. And so, yes, it would
enhance the performance, but it probably would enhance it
by something like one or two seconds rather than two or
three seconds. That's a reasoned guess.

10 Q. All right. Now, looking at page 179 of
your article marked Exhibit 63, Bicarbonate Ingestion and
Anaerobic Performance. You say in the last paragraph in
the left-hand column:

15 "It was concluded that the ingestion
of sodium bicarbonate prior to exercise
had an ergogenic benefit on the 800-m
racing time of trained middle-distance
runners."

20 And then over in the right-hand column, last
paragraph, page 179, beginning at the second sentence:

25 "It is clear from these studies that
bicarbonate ingestion can improve
performance in anaerobic events such as
400, 800 and 1,500 meter races. Soda
loading should also be beneficial in

5

exhaustive exercise of similar duration
in such sports as swimming and cycling.
In events that are longer than 4
minutes in duration, the contribution
of energy from anaerobic glycolysis
becomes progressively smaller, and
hence, the potential benefit of sodium
bicarbonate ingestion in these events
would appear to be minimal."

10

Perhaps you can just help us there again
without getting into all of the physiological detail that
perhaps may be necessary, why is it that we are really
looking at events that are ranging what, two minutes to
four minutes I guess is the thrust of your evidence, is
it?

15

A. One minute to four minutes.

Q. One minute to four minutes. Why is
soda loading of a benefit to those kinds of events and not
to say the 100-meter sprinter or the three miler?

20

A. In events of that duration, exhaustive
exercise of that duration, the cause of fatigue is the
buildup of lactic acid because when you are producing that
energy that quickly you have to use a certain metabolic
pathway which has as a byproduct lactic acid.

25

When you move into longer and longer

distances you have to slow down your speed a bit and you are able to provide the energy by aerobic metabolism, that is the use of oxygen.

And so, you now start to move into
5 situations where you need to provide more and more oxygen where blood doping for example would be beneficial to provide the additional oxygen. So, you are moving from one type of metabolism progressively into another and so therefore the benefit to the one type of metabolism would
10 progressively be lost as you move into the other type.

Q. I see. I assume that from what you have said earlier, that your position in regard to soda loading would be the same as it was in respect of blood doping and indeed the same as the policy of Sport Canada?

15 A. That's correct. We discussed that at our Committee and I believe that's why Sport Canada included it in their policy statement.

Q. And do you know what's going on in the international scene? Are there any steps being taken to
20 add soda loading to the banned methods list?

A. I am sorry, I honestly don't know. I have not been Chairman of the Committee for the last year. And there could be lots going on, but I really don't know.

Q. All right. Then I wanted, Dr.
25 Gledhill, to go to another subject in relation to doping

methods. And I want to start again with Exhibit 18, and I will get that back for you.

Now, if you would look with me, Dr. Gledhill, at the second page from the last, second last
5 page, under Roman numeral II, Methods, go down to B, Pharmacological, Chemical and Physical Manipulations.

THE COMMISSIONER: I am sorry, Mr. Armstrong where are you now?

MR. ARMSTRONG: I am sorry, Exhibit 18,
10 second last page.

THE COMMISSIONER: The very end, I see.

MR. ARMSTRONG: The very end.

THE COMMISSIONER: Yes, pharmacological, chemical, right.

15 MR. ARMSTRONG:

Q. That's it. And if you would read with me for a moment, Dr. Gledhill,

"The IOC Medical Commission bans the use of substances and of methods which
20 alter the integrity and validity of urine samples used in the doping controls. Examples of banned methods are catheterisation, urine substitution and/or tapping, inhibition of renal
25 excretion. e.g. probenecide and related

compounds.

Now, did you have some occasion when you were at one of the meetings that you have described earlier or perhaps both of the meetings you described earlier with Dr. Beckett to discuss the question of urine substitution as it is described here or indeed I think as you may describe it as urine transplants?

A. Yes, I did.

Q. Okay. Now, just before the -- I am putting the cart before the horse here a little bit but before we go into those conversations, what is urine substitution and what are urine transplants. And then we will come back to your discussions with Beckett.

A. As you heard from the evidence previously, the doping control test is the collection of a urine sample in the presence of a witness so we know it is that person's sample. So, it is what is in the urine that's important.

Now, if an athlete has an opportunity to void their urine and then replace that urine via catheter with dope-free urine in the case of when they had dope in that urine, then when they provide a sample under somebody's supervision after, they are providing a dope-free urine sample.

Now, at the end, if you recall the sequence

of events, at the end of a race, the person who is to be selected for doping controls, and from that point on is under the supervision of a doping control officer. And so in an event for example like a long jump or a pole vault where they have various trials and they have an opportunity to, where they are sitting around for a long periods of time between them, it's possible, or in a throwing event which is probably even more suspect or is suspect because we have had evidence in Canada of throwers with positive tests, that a person between throws before the end of the event, could go to the washroom, which is natural over the course of a day, and at that point in time void the bladder, catheterize and replace the -- if there was dope in it, the dope urine with a dope-free urine. And this technique has been rumored for a number of years, has been rumored for a number of years to be taking place.

Q. Just to stop you there for a moment to understand how this could work at a track meet. As I understand what you are telling me is that a shotputter for example, who may ultimately be tested, doesn't come under the control of the doping control officer until he has put the shot for the last time and during the course of his competition he puts the shot a number of times?

A. That's correct.

THE COMMISSIONER: Until the winners are announced.

MR. ARMSTRONG: Until the winners announced.

5 THE WITNESS: Until the winners are known.

MR. ARMSTRONG:

Q. And so before his event is finished, unlike a middle-distance runner who can't get off the track in the middle of his race to go and catheterize himself.
10

THE COMMISSIONER: Well, that would apply to all athletes?

THE WITNESS: Could be done before the race as well, as long as it was --

15 THE COMMISSIONER: They all allowed to go to the washroom before the race, any race, I guess.

MR. ARMSTRONG: Correct.

THE WITNESS: So, if we are talking about logistics and how this might be accomplished then
20 logistically it is conceivable. Practically speaking, catheterizations are done fairly often in the hospitals for a variety of reasons in both sexes. It's easier in a female than it is in a male but it is not inconceivable at all.

25

MR. ARMSTRONG:

Q. Now presumably --

THE COMMISSIONER: Catheterization, that's
the accomplish the urine transfer?

5 THE WITNESS: That's correct, the transfer.

MR. ARMSTRONG:

Q. And presumably from your experience and
research in the field, you became aware that such
practices were going on and you had occasion to speak to
10 Dr. Beckett, the Chairman of the IOC Medical Commission
about this. And when was that?

A. That was in Vienna in July of 1982.

THE COMMISSIONER: May I ask you, is this
something that's been added to or has this always been --

15 THE WITNESS: No, this is recently added
to.

THE COMMISSIONER: That's --

THE WITNESS: As far as I know, that the
catheterization was not named as a banned practice prior
20 to the recent Seoul Olympics. I am not aware of it having
been named prior to that time.

THE COMMISSIONER: Okay.

MR. ARMSTRONG:

Q. I am sorry, I am not following you. It
25 was a banned practice prior to Seoul, was it not?

A. I don't believe it was banned prior to Seoul. I don't think it was name as a banned practice prior to Seoul, to the best of my knowledge.

5 Q. I see. So, it's only been recently added?

A. That's correct. And it definitely was not in 1982.

10 THE COMMISSIONER: I know that, but I don't know what the date of this document -- I thought this was a pre-Seoul document. It's not dated -- we will find out.

MR. ARMSTRONG: It reads on the second page Calgary and Seoul. And my understanding from Mr. Makosky's evidence was that --

THE COMMISSIONER: It was '88.

15 MR. ARMSTRONG: -- this was the applicable --

THE COMMISSIONER: All right. We will we will find out if there is any problem with it.

20 MR. ARMSTRONG: All right. In any event, whether this applied just prior to Seoul or --

THE COMMISSIONER: The time you were talking to Dr. Beckett it had not been banned, I guess

THE WITNESS: No, it had not.

25 THE COMMISSIONER: You discussed this also in Vienna?

THE WITNESS: Yes, I did, immediately after discussing the blood doping and having been --

MR. ARMSTRONG:

Q. Now, tell us about that conversation?

5 A. It was at the same meeting of the Council, the same doping meeting and Dr. Beckett.

Q. That's the International --

A. International Sports Medicine Federation, it was a world congress with a special meeting
10 for doping with the representatives from various countries. And after urging that blood doping be banned and having been turned down, I then asked not that urine transplants be banned, but that there be some that --
there is great concern, that there are rumours that this
15 is going on and it is something that should be looked into with the potential for banning it at that point in time.

The response in fact was "we don't think it is a problem and so at the present time we are not going to do anything about it."

20 THE COMMISSIONER: What year is that again?

THE WITNESS: 1982.

THE COMMISSIONER: Thank you.

MR. ARMSTRONG.

Q. All right. And then subsequent to
25 1982, did you just by pure coincidence, as it were, have

some experience that led you to conclude that this may well in fact confirm what you understood in 1982, to be a serious problem?

5 A. Yes. I was attending a pre-Olympic congress again and on behalf of Sport Canada in Oregon and there was a major track and field meet, it was the U.S. Olympic trials being held in the same place at the same time. And the individual, Bourque is his name, who was the flag carrier for the U.S. Olympic team at the L.A. 10 Olympics, happened to be staying at the same hotel that I was. He did not know that I was involved in any way with doping controls in Canada and was a very affable individual and spoke with me at length about what he had experienced as a three-time Olympian. He had participated 15 in the Olympic Games, he did not go to Russia because the United States didn't, but two Olympic games prior to that, this is his third time coming up. And he told me at that time that he had actually seen himself an individual at the Olympic games transplanting urine by a catheter.

20 THE COMMISSIONER: Well, again, at that time it was not banned?

THE WITNESS: It was not listed, that's correct.

25 THE COMMISSIONER: And your definition was not accepted by some others?

THE WITNESS: That's correct.

THE COMMISSIONER: Your interpretation, I
should say?

THE WITNESS: Was not universally held.

5 MR. ARMSTRONG:

Q. Well, let's just follow that up,
though, even though you would not have carried the day on
the blood doping issue, at that time would not the
majority of people in positions of control have agreed
10 that to substitute somebody else's urine for your own
urine would be in effect cheating?

A. You would think so.

THE COMMISSIONER: Well, on and different
basis, obviously, because it frustrates the test.

15 MR. ARMSTRONG: Yes.

THE WITNESS: Yes, I would take that
position, but we are in a that position right now with --
I mean now they have finally added urine transplants but
soda loading which we know enhances performance is not
20 named, is not banned. Sport Canada, I take it, have taken
the initiative. They have put it in their document, but
in fact at the -- when we compete at the Olympics, it is
not a banned practice. It is not named and therefore
those who do not interpret the old general definition
25 which I guess would no longer would apply --

THE COMMISSIONER: Of course, to detect this, you really have to have almost somebody observing or confess of some sort?

THE WITNESS: For urine transplant, you would. Soda loading, there is a detection.

THE COMMISSIONER: I notice -- I read in your article you can detect soda loading but, for urine transplant, there is no way to detect that?

THE WITNESS: But, what it does, It puts it in the same category as blood doping was, when the U.S. cycling team were involved in it. They said it is not named and therefore it is not cheating. My opinion, my position is that ---

THE COMMISSIONER: Well, it does, with respect.

THE WITNESS: Then they have to cheat.

THE COMMISSIONER: If it is detected, I have difficulty seeing how it would pass because obviously it is not only cheating, in one sense, it is fraud, isn't that ---

THE WITNESS: Exactly.

THE COMMISSIONER: ---isn't that your stand?

THE WITNESS: That's correct. I think it's always been fraud. I think it was fraud in 1982 when we brought it up, but nothing was done about it then.

THE COMMISSIONER: Well, as we say in Latin,
ex abunte cautelum.

THE WITNESS: Beg your pardon?

THE COMMISSIONER: You're the Latin expert?

5 THE WITNESS: Is this like induced
erythrocythemia?

MR. ARMSTRONG: I'm going to take you back
for a moment because I overlooked this question of testing
and soda loading and ---

10 THE COMMISSIONER: The words are, 'Out of
abundance of caution,' is what the definition is.

THE WITNESS: I see, thank you.

MR. ARMSTRONG:

15 Q. Can I take you back for just a moment
before the lunch break. What about soda loading? Is
there a detection technique for it?

A. At the present time, it is still
developmental. There is a proposed technique, there is a
20 research project being conducted at the University of
British Columbia, funded by Sport Canada, but it is not
definitive at the present time.

THE COMMISSIONER: It is set out in this
article, I think, isn't it?

25 THE WITNESS: I proposed a particular

detection technique.

THE COMMISSIONER: I read that.

THE WITNESS: Yes.

5 THE COMMISSIONER: But that is still in the
experimental stage.

THE WITNESS: Yes, it is. It must be
absolutely foolproof before it can be introduced.

THE COMMISSIONER: All right.

10 MR. ARMSTRONG: Mr. Commissioner, I'm not
going to be much longer with Dr. Gledhill, but I'm going
on to another subject and this might be a convenient
point, if that's all right?

15 THE COMMISSIONER: We will adjourn to 2:15,
and if it won't inconvenience counsel, I have a meeting I
must attend at Osgoode Hall. I still have some judicial
duties to perform, or else I will get fired. And you seem
to think that would be a happy event, Mr. Armstrong.

So, we will have from 2:15 to 4:00 today,
I'm sorry.

20 MR. ARMSTRONG: Thank you.

--- Luncheon adjournment

--- Whereupon resuming

THE COMMISSIONER: Mr. Armstrong.

5

MR. ARMSTRONG:

10

15

Q. Thank you, Mr. Commissioner. Dr. Gledhill, taking your own experience in the approaches that you have made to the IOC in respect of blood doping and in respect of urine substitutions or urine transplants, whatever the appropriate technical technology is concerned, I know that you can't necessarily always generalize from one or two specific incidents but, from also your broad range of experience and what you know in this field, is it fair to say that from time-to-time the IOC Medical Commission has been slow to react to problems that are perceived on the horizon? In fact, more than perceived, they can be confidently predicted, such as your 1978 study in respect of blood doping?

20

A. Yes, I would agree with that. In particular, in respect -- to regard to blood doping because we went through that scenario. I think they were very slow to react to that.

25

Q. And would you agree with me that the IOC, maybe, is one of those bodies that might well be thinking of and maybe it is now, in light of some of the

evidence we've heard in the last week or so, ought, in fact, to be taking a leadership role and rather than being reactive, they might be pro-active?

5 A. I don't know if I could go as far as to say that. I think the IOC have taken a leadership role in many, many issues. In this particular case, I think they were slow to respond and certainly, as you say, in the case of urine transplants I think that we could be pro-active. I think that something should have been done
10 a long time ago.

 In the case of soda loading, there are rumors that soda loading is going on and so, a pro-active step, whereby it is banned right now, and then let's cross on all the t's and dot the i's later on, is the way I feel
15 about it.

 So, yes, I think that on occasion they are somewhat slow to respond. But, overall to say they don't play a leadership role, I think that's perhaps a bit of an over statement.

20 Q. I'm sorry if I suggested that they do not play a leadership role. I think it's clear from the evidence that indeed they have.

 What I was suggesting, that perhaps somebody like you might say that they should be more aggressive in
25 their leadership but you've answered the question, I

think, fairly and I'll move on.

Now, one of the things that we've not discussed with you but which has come up with other witnesses, particularly in questions asked by the Commissioner, relates to this whole testing procedure ending up, as it seems in some instances at least, with the finding of a positive test.

And one of the issues that the Commissioner, and perhaps others, have discussed with previous witnesses is, what efforts have indeed been made by responsible organizations such as the Sport Medicine Council of Canada and others to investigate the circumstances of an athlete testing positively.

And obviously, by that, I direct your attention to what has been done in the past when there is a positive result for an athlete, for a banned substance, so far as finding out where did he get the drug, who suggested he or she take the drug, who administered the drug to the athlete?

All of those, it seems to be, very relevant questions for an organization such as the Sport Medicine Council of Canada's Committee on Doping in Amateur Sport. I never get the name correctly for which I apologize but...

A. It's changed.

Q. That's the issue and can you help us there as to, during your office, what attention was focused beyond the positive result in respect of a particular athlete?

5 A. A short answer is not -- and the reason for that is there is no capacity to do that. One of the things certainly that I would recommend is that we need some type of investigative mechanism.

10 You and I have discussed this. It's not something that I think should be part and parcel of the committee itself, but the ability to access an investigative mechanism so that when these issues come along, when we hear the people are using urine transplants, when we hear that soda loading is going on, 15 is being used by athletes, when we have reputable sources providing information to that effect, when we have a positive test with an athlete and we have a policy that states that ----

Q. And you're looking at Exhibit 37?

20 A. That's correct.

Q. In the second page?

A. That's right?

Q. Yes?

25 A. And the policy states that -- let's see now.

Q. Under the position statements, second paragraph?

A. Right.

5 "Sport Canada is unequivocally opposed to the use by Canadian athletes of any banned substance in contravention of the rules of the international sport federations and/or the International Olympic Committee, and is equally opposed to any encouragement
10 of the use of such substances by individuals in positions of leadership in amateur sport (i.e. coaches, medical practitioners, sport scientists, administrators, etc.) or by athletes themselves."

15 The fact of the matter is that that particular portion of the policy has never been addressed and the reason is there is no capacity to address that.

There is no investigative mechanism that allows us to actually do something about the policy as
20 stated at the present time.

Q. And I take it that's simply because the only procedure that is in place at the moment is the collection procedure of the sample from an athlete, the transfer of it to the lab and then in the cases where
25 there is a positive result, a positive finding and then

the administration of a sanction by the appropriate body and the appeal procedure through arbitration if that is used?

A. That's correct.

5 Q. And none of the responsible bodies have -- or perhaps that's unfair. Have any of the responsible bodies then said, well, John Smith tested positively for an anabolic steroid at a certain meet, we should find out where he got that drug, who suggested he
10 take did, who administered it to him. That just hasn't happened?

A. No, it has not happened. To my knowledge it hasn't been suggested that we should go after John or whoever.

15 Q. Well, John Smith, I use as the name of an athlete?

A. Yes.

Q. What I'm suggesting are those who may have some complicity in its --

20 A. There have been no efforts whatsoever in that regard.

Q. All right. And what are your thoughts as to whether there should be efforts in that regard and who the people are that should take the appropriate action
25 to exercise those efforts?

A. I feel very strongly that there should be some type of investigative mechanism. We have not discussed this at length at the committee. I am no longer on the committee. I've suggested it to the Chairman of the committee and so they're very much aware of that.

Whether or not this should be something which is within the purview of the committee, within their mandate, I feel probably not. That's my personal opinion.

If there were some investigative capacity outside of that committee, because that committee also acts as an advocate for the athletes if they require that and if they're seen as being an investigative policing committee, then that might ruin that type of relationship.

So, I feel it should be separate from the committee. At first approximation, anyway.

In order to be able to delve into allegations of drug abuse, which are not yet on the banned list, for example, in order to be able to impose sanctions on those who may have been involved in preparing and giving and coercing, in some how providing the athlete with the drugs that they've been abusing, we have to be able to somehow get at that. Otherwise, there is no point in having the policy.

I feel strongly that they should have some type of investigative mechanism and at first

approximation, I would say it should be something which is
is separate from the committee itself but accessible to
the committee.

Q. All right. And has your thinking taken
5 you beyond that as to what organization it might be that
might provide the investigative capacity to do just that
or....

A. Not really. The Justice Department,
for some reason, comes to mind but I honestly am not aware
10 of the most appropriate place for that.

Q. All right.

A. I think it should be arms-length from
the committee on doping, though, but it should definitely
be accessible to them.

Q. Then again, I wanted to ask you about
15 your view of the sanctions or the penalties. Again, I
guess it's simply a product that the focus of the
anti-doping procedure has been on the athlete, that
obviously the sanctions have been directed to the athlete.

But, assuming that your view would be that
20 you look beyond the particular athlete to deal with this
problem, have you any particular view in respect of
penalties or sanctions beyond the athlete, beyond his
immediate group of advisors, whoever they might be, indeed
25 to the sport itself?

A. Yes.

Q. Or to a sport itself without getting into any invidious suggestions about what sports might be appropriate?

5 A. I think the appropriate sports are the sports that have significant histories of drug abuse and there are one or two possible examples in Canada at the present time.

10 Certainly, if we look at the history of the drug abuse in the Olympic Games or through any doping control programs, there's one sport in particular that comes up all the time and I -- I have -- one of the main reasons why I stepped down as the chair of the Committee on Doping is because of the frustrations that I
15 experienced over the years with the same sport again and again having problems, the same names of athletes coming up and, as a volunteer who is spending a lot of time on it, you really wonder whether we're all working to the same purpose.

20 And I feel that some type of sanction should also be administered to sports that have significant histories of drug abuse occurring in those sports.

Q. And what kind of penalty or sanction without, again being specific, would you think might be
25 appropriate and, again, I know you have to know what the

circumstances are, what the particulars are and so on, but what might be, in general terms, a range or a type of penalty?

5 A. Well, I think that the -- at the very least, the sport association or organization should be not allowed to compete in the -- let's say, they've had a significant history in the Olympic Games of having drug abuse. Then I think that they should be dropped from the Olympic Games for at least one opportunity.

10 Another possibility, if it's domestic problem that keeps occurring in international championships, is that they be treated like the athletes and the funding be withheld for a twelve-month period or whatever is the equivalent period of time that the athlete
15 would have.

 So, I think if the sport itself does not take the problems seriously and allows these things to go on, if they do not themselves police the athletes in the sport, that we're never going to get a proper control of
20 it. So, I feel they, too, should feel the severity of the sanctions.

 Q. All right. Then, finally, just by way of conclusion, I just want to ask you one or two questions.

25 From your education and academic training,

research, your experience in athletics, your experience in sports science, and, of course, your experience with the Sport Medicine Council of Canada, are you in agreement with others that we indeed today have a very serious
5 doping problem world-wide?

A. Yes, I am.

Q. And would you agree that although we have taken some important steps in the last year or two, we are well past the time when the responsible
10 organizations, governmental and others world-wide, should be aggressively attacking the doping problem?

A. Yes, I definitely support that.

MR. ARMSTRONG: Those are all the questions I have, Mr. Commissioner.

15 THE COMMISSIONER: Thank you, any questions of the witness?

MR. FALBY: I have a few, thank you, Mr. Commissioner. I'll try to be very brief.

THE COMMISSIONER: Mr. Falby.

20 MR. FALBY: Mr. Commissioner, I wonder if the Registrar might put the exhibits ---

THE COMMISSIONER: Mr. Falby is with the COA so you know who you're dealing with.

MR. FALBY: 49 and 55.

25

CROSS-EXAMINATION BY MR. FALBY:

Q. Dr. Gledhill, I'd like to ask you a few questions about these documents to see if you can help me understand it because I'm a bit confused.

5 Did I understand your evidence correctly that the contract that the Sport Medicine Council of Canada has with the INRS Laboratory permitted up to 1,200 tests annually?

A. Yes, it did permit that. The actual,
10 the mathematical basis of the funding was based on 1,000. But, it was allowed that if you needed to go over to 1,200 you could do that. It was not anticipated that that would be on a regular basis but, yes, that was a possibility.

Q. And the amount to be paid for that
15 testing was included in the overall annual expense of -- expense is the wrong word -- the overall annual payment to the laboratory?

A. That's correct.

THE COMMISSIONER: It was a set price
20 contract, was it not.

THE WITNESS: That's right.

MR. FALBY:

Q. Fixed price. We have in Exhibit 49, in
25 the third column, the amounts that were paid annually. Do

you have that?

A. Yes, I do.

THE COMMISSIONER: Are you familiar with that document?

5 THE WITNESS: This one is the first time I've seen this one, but I've seen the other one, number 55. I'm familiar with the numbers on it now that I've looked at it.

10 MR. FALBY:

Q. Now, when I looked at Exhibit 55 and you commented on this, this morning, under the heading testing programs, are you with me? There is a figure, let's take 1988/89, 6,400. Do you see that?

15 A. Yes, I see it that.

Q. Underneath that, in brackets, 684 September?

A. By September, that's correct.

20 Q. And was 6,400 the number of tests requested or is that a dollar figure?

A. First of all, I have not been the Chairman during that year at all so this is now speculation on my part.

25 Q. If it's easier, let's go back to a year when you were Chairman?

A. I'll do that then.

Q. All right. '86/87, is that a good one?

A. Yes.

Q. The figure is 4,600?

5

A. Right.

Q. What does that figure represent? Is it a dollar figure or is it the number of overall tests requested?

10

A. No. The overall tests requested would be the 850.

Q. Right. What's the 4,600?

A. Don't know.

15

THE COMMISSIONER: I had assumed, perhaps wrongly, when I read those figures, that the contract with the lab, agree what they do with the money is test the product on site.

20

But we heard from Dr. Pipe that you supply all sorts of equipment to people for the meets, all the paraphernalia. Where do you get that money from? I assume that's ---

25

THE WITNESS: The contract itself between the committee and the INRS involves the testing, a research program, updating of facilities, ongoing contracts to maintain the facilities and the personnel to run the laboratory year-round.

THE COMMISSIONER: In Montreal?

THE WITNESS: In Montreal, that's correct.

THE COMMISSIONER: In the meantime, when
they have a meet, as I understand it, you supply those in
5 the organized meet with a substantial amount of
paraphernalia.

THE WITNESS: I see. So, it's quite
conceivable that that 6,400 ---

THE COMMISSIONER: You have to pay for all
10 that equipment and material?

THE WITNESS: Yes, we do. So, it's except
that the twenty-seven-seven would not fit, in that case,
in the column before that.

15 MR. FALBY:

Q. It certainly doesn't look like the
price of the testing for that year?

A. It's definitely not.

THE COMMISSIONER: I thought the testing is
20 included in the overall payment to the lab?

THE WITNESS: It is.

THE COMMISSIONER: It's not itemized in that
exhibit.

MR. ARMSTRONG: The bottom line is.

25

MR. FALBY:

Q. I have another question about that. If
you look at Exhibit 49, maybe Dr. Gledhill isn't the one
to help us with this, but Exhibit 49 sets out, as I
5 understood from Dr. Pipe, in the third column, the annual
payment to the INRS Laboratory?

THE COMMISSIONER: Yes.

MR. FALBY:

10 Q. And those figures are not the same as
the figures set out in Exhibit 55.

I wondered if you could help me with that,
Dr. Gledhill?

A. As I said, this the first time that
15 I've seen this document. I saw this other one the first
time this morning.

Q. It's not fair is to ask you questions
about it then.

THE COMMISSIONER: Mr. Barber, you can get
20 that information for us, I guess, can you?

MR. BARBER: Yes.

THE WITNESS: I believe Mr. Armstrong has
directed the lawyers for the two people who would know
about these to provide the information. That's my
25 understanding.

MR. FALBY:

Q. We'll leave that for now then. Now, you mentioned that the INRS Lab had three functions; testing, acquisition of equipment, and research?

5 A. Yes. The acquisition of the equipment wouldn't necessarily be a function. The other two are the primary functions.

Q. That's included in the overall price?

A. Yes, it is.

10 Q. I asked Dr. Pipe if he was able to give a breakdown of the \$2 million or so paid to the lab as to what was used for what and he indicated you might be able to help us. Are you able to do that?

A. Did he? That was very nice of him. I
15 missed that. To tell you the truth...

Q. I think he was trying to be helpful.

A. He's not helpful. Offhand, to give you an itemized breakdown, no, I can't. I'm sure the information could be provided. We'd have to go back to
20 the files and find it.

In essence, though, it was a block amount which would take into account the fact that they had to keep on replacing equipment. They had to have personnel there on a full-time basis. They had to maintain a
25 research program just to enhance the sophistication of the

testing techniques and then they had to supply 1,000 or perhaps up to 1,200 tests per year.

Now, the actual cost of the tests each time would be minimal relative to the rest of the contract.

5 That is, a extra 200 tests for them with all the personnel there and all the equipment there and so on, would probably represent a one per cent of the total budget.

Whereas, and the same thing if it was 200 under, it would represent they had saved one per cent of the budget. So, it would be a significant amount
10 relative. Once all the staff is there, all the time anyway, so there is no major extra cost for each specific sample, even within a certain range.

Q. I see. Now I'd like to ask you a bit
15 about the research function of the INRS Laboratory. You mentioned this morning some research that had been done, that had been vetted by the Committee of the Sport Medicine Council?

A. That's correct.

20 Q. One of the ones I think you mentioned was from the University of British Columbia?

A. That's correct.

Q. Was that funded -- was that funded by Sport Canada?

25 A. Yes, independent of the INRS contract.

Q. That would be something outside of the
the --

A. Yes, it would.

Q. ---the INRS contract. So, the research
5 you're talking about under the auspices of that contract
is something specially for that laboratory?

A. That's correct.

Q. And are you able to help me as to what
research has been done?

10 A. They have been working on trying to
enhance the sensitivity of the various assay techniques
over the years.

Q. They've produced reports from
time-to-time?

15 A. Yes, they do. And Dr. Dugal, I believe
who we will call later on and he could probably provide
precisely that, but yes, they do provide pretty voluminous
reports.

20 THE COMMISSIONER: Is he in charge of that
lab?

THE WITNESS: Yes, he is.

In addition to that, they have to, on a
yearly basis, they're provided with samples from an
outside party to maintain their accreditation and so they
25 have ongoing expenses that relate to maintain their

accreditation as well. That would be part of, I suppose, their research program to make sure that they are up to the level of sophistication, in the sense that they would be required.

5 Q. So doubt this is sophisticated equipment that requires purchase, as well?

A. That's correct.

Q. Now, clearly there's some surplus test capacity in the INRS contract.

10 Can you tell me whether the Sport Medicine Council, or its committee, advised any of the national sport organizations that they possibly could have had more testing if they had wanted it?

15 A. Let me try and clarify that then. When you're saying there is surplus, these numbers -- there are three critical numbers. The first number is the number of tests that is requested of the total national sport organizations.

20 Q. That's what -- those are the figures that are on Exhibit 55, if I understand correct?

A. That's correct. So, then what happens, that number is brought forward by Mr. Oli Sorensen to the committee on Dope in Amateur Sport and they would look at the profile for each sport as to how many tests they would
25 have requested.

At that point in time, they might say, we'd like to see more tests for weightlifting because of its past history and it seems inappropriate to give synchronized swimming to give 100 because they have no history.

So, some guidelines, as far as where additional emphasis needs to be placed or where we seem like we're over-indulgent can be provided to Mr. Sorensen.

Q. You can then give your advice as to whether it should be up or down depending on the sport?

A. Right, but not with precise numbers. Mr. Sorensen would then take that information and then ---

THE COMMISSIONER: You've not identified Mr. Sorensen by name?

THE WITNESS: Mr. Oli Sorensen, he works for Sport Canada. He happens to be in the courtroom today, or the Commission room.

THE COMMISSIONER: It's not a courtroom.

THE WITNESS: Commission room. I've lost the appropriate terminology, sorry.

MR. FALBY:

Q. I'm trying to understand this apparent number of extra tests?

A. Let me just finish my sentence, first,

please?

Q. All right?

A. So, we have the requested tests and then what happens, then he allocates.

5 So we may have 900 requested but, in fact, they there may be a thousand or 1,200 allocated. That number does not appear anywhere on here, so we don't know what that number is.

10 Then, thirdly, those sports then, implement their program and they may have asked for testing at various events throughout the year and they may miss an entire events because it's cancelled, it's rained out, the roof falls in, who knows. And, so, those are not used.

15 So, we have a third set of figures which are the actual used. When you say there is a great surplus, there is a surplus between what was initially requested but there's not necessarily a surplus between what was actually used or, in fact, what was actually allocated.

20 Q. Are you suggesting, contrary to what Dr. Pipe told us, that there might well be more tests in the figures put to the national sport organizations than are shown on Exhibit 55?

A. Yes, there might well be more.

25 Q. That might approach the budget number of tests, if I can put it that way?

A. It might approach 1,000. I'm quite certain it didn't ever exceed that but I honestly do not have those figures and I believe that they have been requested.

5 Q. Has there been ever an occasion, to your knowledge, where a national sport organization or an athlete wanted testing and it was denied for any reason?

A. In the situation, for example, where a very low risk sport said that they wanted to use 100 tests
10 in order to educate all of their athletes.

Q. Aside from the budgeting?

A. Not as far as I know.

Q. Now, I'd like to ask you a few questions about Exhibit 18?

15 A. I happen to have that one here.

Q. Do you have it in front of you? That is the IOC Medical Commission definition of doping, list of doping classes and ethics. You've given us the history of the addition of blood doping --

20 A. That's correct.

Q. ---to this list?

A. Yes.

Q. And you've also told us that the Sport Medicine Council had an educational policy. Do I take it
25 that that blood doping was part of the education that you

gave to athletes in Canada?

A. Yes.

Q. That is, the fact that that was
forbidden practice?

5 A. Yes. In fact, you saw the slide show
that Andrew Pipe -- and there were two slides that
referred specifically to blood doping. We've had those
slides since the inception of the program.

Q. So, there would be no doubt that a
10 Canadian athlete going to the Calgary or Seoul Games would
know if blood doping was a forbidden practice?

A. I would think so, yes.

Q. And the same with any of the other
doping classes as set out in Exhibit 18?

15 A. That would be my opinion, yes.

Q. And most certainly anabolic steroids?

A. Definitely.

Q. You've made every effort to educate
athletes in Canada that the use of anabolic steroids is a
20 forbidden practice?

A. That's correct.

Q. You mentioned several conversations
with Dr. Beckett, the Chairman of the IOC Medical
Committee?

25 A. Yes.

Q. And you're not suggesting that he was approving of the policies or disapproving of the policies you discussed with him?

A. In the first instance, I think I
5 mentioned two occasions that I spoke with Arnold Beckett. In the first instance, I spoke with him on his own, as the Chairman of the Medical Commission. I don't know if he ever did take it to the Medical Commission. He certainly, at that meeting, indicated that nothing would be done
10 summarily without discussing it with anybody else.

So I would presume, that yes, what you're saying is correct, that he did not feel that blood doping -- he, personally, did not feel blood doping would be banned.

15 The second instance, he was part of a committee and at that point whether it was his personal opinion or it was a committee opinion, I have difficulty discerning.

Q. In any event, the policy wouldn't be
20 set by Dr. Beckett alone?

A. No, it wouldn't. However, he certainly had the opportunity to go forward with it and he could have indicated to me, yes, I really feel I should and I'll make every effort to do that. He did not. He said, in
25 fact, the contrary that he did.

Q. Somebody did?

A. Somebody did. I think that probably after the L.A. Olympics with all of the lobbying and the advocacy from groups such as the committee on doping in amateur sport and other groups, that that was the pressure that caused it.

Q. Yes. And, in fact, you would agree with me, wouldn't you, that the IOC Medical Commission has to take into account a lot of people's comments on what ought to be its policy?

A. Yes.

Q. And it has to take into account consultations with a lot of other national sports bodies on other interested parties?

A. Yes, I would agree with that.

Q. That would be the whole nature of the IOC?

A. Yes. But it would also seem inappropriate to me to, offhand, reject individual opinion, out of hand, to say that no, we will not be doing it without taking that forward which is what appeared to be the case in my first conversation with him.

Q. Well, what I understand you're telling me is that Dr. Beckett expressed to you his personal opinion?

A. That's correct.

Q. He didn't tell you that the IOC medical committee wouldn't discuss it?

A. No.

5 Q. And they obviously did because they changed the rule?

A. That was six years later.

Q. Yes?

A. That's a long discussion.

10 Q. Did you know that Dr. Dugal is a member of the IOC Medical Commission?

A. Yes, I do.

Q. You had a close association with him on the Doping Committee?

15 A. I know Dr. Dugal.

Q. Did you ever discuss these issues with him?

A. Yes. How long has Dr. Dugal been on the Medical Commission?

20 Q. I was going to ask you that?

A. That's a critical question. I believe that it was subsequent, quite subsequent to the time that I had my conversation with Arnold Beckett.

25 Q. Did you talk to him about the question of soda loading?

A. Yes.

Q. And those are other things that might be discussed and dealt with by the IOC Medical Commission, of course?

5

A. Yes.

MR. FALBY Thank you very much.

THE COMMISSIONER: Thank you. Any other questions. Mr. Bourque?

MR. BOURQUE:

10

Q. Dr. Gledhill, my name is Roger Bourque; I represent the Canadian Track and Field Association.

I notice from Exhibit 56, your resume, just to underscore this for the purpose of my examination, you were Vice-President of the Sport Medicine Council for the years 1983 and 1984 and, additionally, Chairman of the Committee on Doping in Amateur Sport for Canada for the years '84 through '87?

15

A. That's correct.

Q. And, in fact, you would be the first Chairman of that committee?

20

A. That's correct.

Q. And I would ask you, the years '83 and '84, in particular, these were, we have heard, seminal years in the Federal Government's role in anti-doping efforts in Canada?

25

A. Yes.

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Q. 1982, the first year of the Federal Government's involvement, and prior to 1983, how many national sports organizations were conducting dope testing programs?

5

A. As far as I know, only one.

Q. Who was that?

A. The Canadian Track and Field Association.

10

Q. And in 1983, when the Committee on doping in ---

15

A. Excuse me, just one second, that was internally, domestic programs you're talking about now. International programs, there were other sports. Domestic programs, the only one was the Canadian Track and Field Association.

20

Q. I am limiting my inquiries to the domestic scene now. In 1983 when the Committee on Doping and Amateur Sport was first struck, was a representative of any particular national sports organization named to the Committee?

A. Yes. Mr. Tom MacWilliams, Track and Field Association.

Q. Again from the Canadian Track and Field Association?

25

A. That's correct.

Q. And we saw yesterday -- I don't know if you were here -- but we saw a video cassette, which was made Exhibit 50. I wonder if you can tell the Commissioner who the narrator in that video was?

5 A. Tom MacWilliams.

THE COMMISSIONER: What's his name?

THE WITNESS: Tom MacWilliams.

THE COMMISSIONER: Is he a CFTA man?

MR. BOURQUE: Yes. CTFA.

10 THE COMMISSIONER: CTFA, sorry. I will get it right.

MR. BOURQUE:

Q. And going back to the Committee again,
15 was a representative from any other national sporting organization asked to sit on that committee?

A. Yes.

Q. Who was that?

A. Mr. Ferrare, cycling.

20 Q. And that would be the initial committee that was first struck?

A. That's correct.

Now, there was an athlete as well, Jim Car, bobsled.

25 Q. All right. But just in terms of

officials from the national sport organizations, just two of them were asked to sit?

A. That's correct.

5 Q. Now, you have been kind enough to mention in your evidence, as Dr. Pipe did, that the committee on doping relied heavily on the CTFA in formulating its Doping Control Standard Operating Procedure Manual, which is Exhibit 35?

A. Yes, I did.

10 Q. And I ask you, in light of this information, do you consider that the Canadian Track and Field Association was in the early 1980's, and on the Canadian scene, a forerunner in the field of dope testing?

A. In Canada, yes.

15 Q. And similarly, when the Federal Government came on the scene in late 1983, did it look to the CTFA as a model in getting its anti-doping program off the ground?

A. Yes, it did.

20 Q. Dr. Gledhill, I was made curious, and I don't mind admitting it, unlike one of my friends, about some of your evidence on blood doping. You mentioned that freeze preserving the withdrawn units of blood was essential to the process?

25 A. If it were done using the persons own

blood.

Q. Which is the preferable and safest means of doing so?

A. That's correct.

5 THE COMMISSIONER: He doesn't think it's preferable at all.

MR. BOURQUE: I am sorry, Mr. Commissioner?

THE COMMISSIONER: He doesn't think either one is preferable, he is opposed to it.

10 MR. BOURQUE:

Q. I'm sorry, in terms of health.

A. In terms of that, and if used for scientific investigation, rather than for performance enhancement.

15 Q. Now, can you tell us who in Canada, what bodies could assist in athlete in freeze preserving such samples of blood?

A. The Red Cross blood transfusion service.

20 Q. Any other body?

A. Not as far as I know.

Q. Now, who, in an athlete's circle of professional contacts, would have access to those facilities?

25 A. The only person would be a physician, I

would presume.

Q. And so far as you know, would a physician or any other person seeking such access on an athlete's behalf, would they have to employ deceitful measures to get the Red Cross to provide that facility for such a purpose?

A. You're asking for an opinion now. I don't know the answer to your question, but I would hesitate -- I can't imagine the Red Cross would provide it if they told them that's what it was for.

MR. BOURQUE No further questions. Thank you, Mr. Commissioner.

THE COMMISSIONER: Thank you.

Any other questions?

EXAMINATION BY THE COMMISSIONER:

Q. Doctor, I just have a few questions I would like to ask and sort of follow up Mr. Armstrong's questions near the end of his examination.

And that is the question of responsibility and how we assign it?

A. Yes.

Q. In looking at your program, your doping control program, I mean, one starts, I think, with the athlete and he knows that if there is a positive finding of a test, he or she will be disqualified?

A. That's correct.

Q. Whether that's adwerent or inadvertent?

A. That's correct.

5 Q. So, that the athlete must know, I gather, what he can take and what he can't take?

A. Yes.

Q. And I notice -- you weren't here -- in the video, that one of the questions asked at the doping control station is: What medication are you on?

10 A. Yes.

Q. And so that in a sense the initial responsibility is that of the athlete. He has got to know what he can take for medication and what he can't, he just can't reach in, like most of us, into his medicine chest
15 some morning he's got a headache and take 292's and 222's because that might disqualify him, is that right?

A. That's right. There could be an additive that's banned.

20 Q. In addition to that, he has a contract under this exhibit, and that's with the national sports organization, right?

A. Yes, the contract they sign at the beginning.

Q. Yes.

25 A. Yes. In which he contracts that he

will not engage in the use of drugs?

A. Yes.

Q. All right. And also I notice, what is required is so are other people as well. They are also
5 required to include the non-encouragement of use, non-possession of anabolics and related compounds, and adherence to the rules in their contracts with the coaches, sports scientists, like yourself, medical
10 practioners and other support personnel engaged by the national sport organization.

So that looking at it in a different way, the party of the contract is the national sports organization -- are you with me?

A. Yes.

Q. And they have a commitment from the athlete and from their coaches, sports scientists that
15 none of this group will either take drugs or have possession of them, and ---

A. I am not sure they have a contract with the sports scientists for example.
20

Q. Well, I will just read this: All national sport -- I mean, have you got this sports update, number 37?

A. What I am saying, specifically -- is
25 this the one?

Q. Well, those that are engaged by the sports organization. If you are a sports scientist -- you mention people who could be engaged, obviously, in your specialty by a national sports organization, such as yourself?

A. Right.

Q. Right. And paragraph 3 is all national -- we have been concentrating on paragraph number 2 was the contractual obligation of the athlete, and which by the way, is a commitment to the non-use and non-possession of banned substances. You see paragraph number 2?

A. Yes, I do.

Q. Number 3 is the corollary of the people who are actively engaged in the athlete's activities. All national sports organizations are required as of this date to include a commitment of non-encouragement of use, non-possession of anabolic and related compounds, adherence to the rules concerning other banned drugs, in their contracts to the coaches, sports scientists, medical practioners and other support personnel engaged by a national sports organization?

A. What I am saying though is that having been involved in sport for as many years as I have as a sport scientist, I have never had a contract with this sport association.

Q. Well, I guess because you're a
volunteer?

A. That's what the problem is, but I could
nevertheless be doing these things, I just have no
5 contract to say I won't.

Q. That's the case where you are actually
engaged by a national sport organization.

A. Correct.

Q. I think you said, was it figure
10 skating?

A. Figure skating, synchronized swimming,
squash.

Q. Well, maybe they don't take volunteers,
but I guess if you are paid under a contract then you have
15 to commit yourself to this, and they wouldn't need a
commitment from you because you are well in advance of
this commitment to yourself.

But what I am seeking to find out is we have
the commitment of the athlete, and he has to know what he
20 is taking, and if it's positive he or she is disqualified,
right?

A. Yes.

Q. And then we have, really, a commitment
from the sports -- contracts with the sports organization
25 to that effect, and a commitment by the sports

organization with all the people that are surrounding these young men or women in training for athletic competition?

A. Right.

5

Q. And then, going up the hierarchy nationally, you now have this doping control run by your former president?

A. That's correct.

10

Q. And the testing in a sense is done under your auspices. We have gone through how it's arrived, it goes to the lab and you get the report?

A. Yes.

15

Q. And what puzzles me, and this may be hindsight easy, and I realize you suggested to Mr. Armstrong you don't have the facilities, but on your Commission you have represented the national sports organizations, right?

A. We do on -- yes, that's correct.

20

Q. And if you have, say, a positive finding from an athlete, say canoeing -- or it doesn't matter what it is -- why wouldn't you then go to the sports organization of the contract, not only the athlete, but with everybody surrounding the athlete and try to find out what the details are. You may not be able to force people to answer, but I don't see any inhibition for

25

making the inquiry?

A. In the case ---

Q. I understand you have got no powers to compel testimony, but ---

5 A. No.

Q. But there seems to have been -- I don't say this critically, I am just trying to look to the future, but it seems to end right there. The athlete has a positive finding, and he or she is disqualified, let's
10 go on to the next competition.

Whereas I am concerned, for example, as the source of these anabolic steroids, I understand that legally they can only be obtained by prescription?

A. That's correct.

15 Q. And yet we from what I understand, I expect we will hear more, these are quite readily available?

A. I understand that as well from weightlifting clubs and things like that.

20 Q. All right. But you are suggesting that -- and there may be a lot of merit in it -- that the sports organization itself maybe liable, should be liable to some sort of penalty, but that would depend a lot, I think in fairness, as to what efforts they made to get the
25 message across, what supervision they made, what --

whether they looked about the premises to see where the steroids are, in about the gym where they are training and so on.

A. I agree.

5 Q. Am I being unfair to think this should have been done?

A. No, as far as whether there should be the follow-up, whether there should be -- whether the Committee itself or the Sport Medicine Council should be
10 going back to the association ---

Q. I am not sure I understand that because you have dual role. You are the advocate in the sense, you're the clinician as well?

A. That's right.

15 Q. Because you contract with the lab, but maybe Sports Medicine -- the Sports Council itself should have that, not just your small group?

A. Well, I feel that that capacity should be available somewhere. Right now there is no provision
20 for that taking place, whether it's undertaken by the Committee or whether it's undertaken ---

Q. Well, no formal power set forth?

A. No, there isn't.

25 Q. There was nothing to stop anybody from making inquiries I would think, not just -- not

necessarily your group, but certainly the Sports Federation who have these contractual obligations to see that they are enforced?

A. I suppose that's correct.

5 Q. Was that ever discussed as to seeking specific powers?

A. Not to my knowledge.

In the case of weightlifting, because of the number of recurrent problems there, there definitely were discussions about where is the problem, where does it lie, and let's try and clean this up.

10

Q. Well we, will pursue that.

Now, Mr. Armstrong asked you about the extent of the problem here in Canada. Is anabolic steroids the number one concern now, as far as you're aware, or unless we have a lot of other prohibited drugs here we have been looking at, and apart from your special concern about blood doping and soda loading?

15

A. Anabolic steroids is the -- are the drugs that are -- that we have evidence that people are using most prominently. Most of the positive testing with that. That does not necessarily say they are not using other drugs, either out-of-competition or during.

20

Q. Well, there seems to be an evolution in preparing this. I have been doing a little reading and

25

this is not a new issue in an Olympic competition, it goes back many years of some sort of violations?

A. That's correct.

Q. All right. There seems to be an
5 evolution from one sort of effort to another, but the current major problem, in your view, is anabolic steroids?

A. Well, it is certainly the one that has become most prevalent as far as people being caught. I am not sure whether there are other drugs that are being used
10 but are not being detected to the same degree.

Q. But the testing is not limited just for anabolic steroids?

A. No, it's not. But when you take an anabolic steroid, it shows up in the system for quite
15 sometime, whereas if you take an amphetamine, for example, to enhance training, it would not show up a couple of days later. Growth hormones are another problem, it would not show up later.

Q. Therefore a random type of testing
20 would likely detect positive findings, where with another test, it wouldn't get the same findings.

A. Exactly.

Q. Even though the drug will be used?

A. That's the point I am trying to make,
25 because we see all the positive tests for steroids, it

would appear, therefore, that steroids is the drug that's being used the most, but we may very well may be missing all of the other drugs because of the type of testing.

5 Q. The testing that is going on, beginning in your regime and following, is not just for anabolic steroids?

A. No, it is not.

10 Q. Now, in your many years experience, you travelled overseas, as well as in Canada, you have been Europe, United States and so on?

A. Yes, I have.

Q. And by happenstance you picked up certain information?

A. That's correct.

15 Q. I read -- I don't know how valid it is, maybe it's just an excuse -- that one of the things that may tempt our athletes to engage in these practices is because a feeling that the opposition are doing it, it's the only way they can compete successively. Do you hear that?

20

A. Yes, I hear that quite often.

25 Q. And in your travels and with the other colleagues in Europe and elsewhere, did they confide in you that they had problems similar to yours, that there was this type of abuse of drugs in their jurisdictions?

A. Yes.

Q. Pardon?

A. Yes. And we know, for example, that
there are positive tests from other countries. So, we
5 know it exists. And we have even defectors who came from
other countries and brought with them pills which turned
out to be anabolic steroids.

Q. I have read about those occasions.

A. Yes. So we know the problem exists
10 elsewhere, yes.

Q. And at the last Olympics, as I recall,
and you will correct me, by medal count, I think if you
add East Germany, Russia, United States, the three
together they got most of the medals?

A. I think so.
15

Q. And was there any disqualifications of
an East German, Russian or American at the Seoul Olympics?

A. Now, I could be wrong on this, but
certainly, the Bulgarians, the weightlifting team.

Q. Bulgarians, yes, I know. There were
quite a few. I heard the figures.
20

A. I don't recall any Americans.

Q. East Germans or Russians?

A. No, I don't recall any positive tests.
25 Now, as far as I know, the answer is no.

Q. And what does that -- do we draw
anything from that one way or the other. I mean, if your
information is that these practices are going on
elsewhere, I might, I would assume it might be going on in
5 these three very large athletic countries?

A. There are two possible conclusions.
They are not using drugs or they are somehow evading
detection.

Q. Do you know what type of testing -- is
10 this national plan that was submitted, I think, to -- was
prepared for Canada was submitted to the meeting in Ottawa
for the world to look at?

A. Yes.

Q. Is it being adopted elsewhere? I
15 forgot to ask somebody that. You have been out of picture
yourself.

A. Unfortunately, for the last year, I
have been out of the picture, and so I would be
speculating. I am not certain about that.

20 THE COMMISSIONER: Well, thank you, very
much. I think I share the view of everybody that's
listened to you that everybody is very impressed with your
expertise and particularly grateful for your assistance
and dedication to athletic competition in Canada.

25 THE WITNESS: Thank you, very much.

THE COMMISSIONER: Thank you for appearing.
And we might get back to you again as I learn a little bit
more about the subject.

THE WITNESS: Fine.

5

THE COMMISSIONER: Thank you.

MR. ARMSTRONG: Just one small matter. It
relates to Dr. Gledhill.

10

I should have told you, Mr. Commissioner,
that when he filed his CV I made a kind of executive
decision to file only the first two pages. The second
page begins with publications and presentations and it
went on at great length, and I wouldn't like any of our
colleagues who got this to think that the publications and
presentations ended after four entries. In fact, I saved
a few trees by not photocopying the balance.

15

THE COMMISSIONER: Thank you, very much.

Thank you, doctor.

MR. ARMSTRONG: Thank you, Dr. Gledhill.

DR. GLEDHILL: You are welcome.

20

THE COMMISSIONER: You are free to go now,
as we say in Court.

THE WITNESS: I thought this wasn't Court.

THE COMMISSIONER: We say it when we find
somebody not guilty we say you're free to go.

25

All right.

MS. CHOWN: Thank you, Mr. Commissioner.
our next witness is going to be Mr. Robert Secord.

ROBERT ERNEST SECORD, sworn.

5 DIRECT EXAMINATION BY MS. CHOWN:

MS. CHOWN: Thank you.

Mr. Commissioner, Mr. Secord is going to be
using some overheads in his presentation, and I have
therefore moved the desk down and we will just put the
10 projector up now.

THE COMMISSIONER: I wondered if that was
Dr. Gledhill's, he seemed to have been cut short.

MS. CHOWN: Mr. Commissioner, just while we
are making technical adjustments, you will find a package
15 of material on your table that we will be referring to,
and I circulated that to counsel as well.

THE COMMISSIONER: Thank you, Ms. Chown.

MS. CHOWN: I am going to start off by
reviewing with Mr. Secord his background and
20 qualifications. You will find a copy of his Curriculum
Vitae at the back of the package of material entitled:
The Presentation by the Recreation Division." I think
it's the second document in from the back.

THE COMMISSIONER: Thank you, I have got
25 it.

MS. CHOWN:

Q. Mr. Secord, you have been described as Mr. Sports and Recreation in Ontario.

5 THE COMMISSIONER: Excuse me. Mr. Nunn, can I see you for just one second.

Sorry, Ms. Chown.

MS. CHOWN: No problem.

10 MS. CHOWN:

A. Mr. Secord, you have been described by others as Mr. Sport and Recreation in Ontario. I think that is a fair description, because, as I understand from your Curriculum Vitae, you have been involved in sport in
15 this province for over 30 years?

A. That's correct.

Q. I understand that you became involved in sport in the mid-40's when you worked for the YMCA, and after that you went on to become the Assistant Director of Recreation for the City of Brantford in 1949, and in 1950
20 a similar position for Town of Mimico.

In 1951, you began to work with the Ontario Department of Education, and you continued with them, and in fact, in 1961 you were promoted to be Supervisor of the
25 Extension Services of the branch, and in 1964 became

Assistant Director and Supervisor of the Specialist and Training Services?

A. That's correct.

5 Q. In 1967, you became Director of Community Programs Branch, and I understand that that branch was then transferred from the Ministry of Education into the Ministry of Community and Social Services in 1971, and you went with the transfer?

A. That's correct.

10 Q. And in addition in 1975, this branch which then underwent another renaming and was now called Sports and Recreation Branch changed Ministries once again and became part of the Ministry of Culture and Recreation, and in that Ministry you were given the responsibility as
15 Executive Director for the Sport and Fitness Division?

A. That's right. I may be the only constant in the whole 40 years.

Q. The department changed names and moved around, you were there.

20 In 1978, you were given responsibility as Executive Coordinator of Field Services for the Minister of Culture and Recreation. And in 1980, you were promoted to Assistant Deputy Minister, Field Services, Sports and Recreation in the ministry?

25 A. That's correct.

Q. I understand you held your current position, which is the Assistant Deputy Minister for the recreation division in Tourism and recreation since 1982?

A. That's correct.

5 MS. CHOWN: Mr. Commissioner, if that might be marked as the next exhibit.

THE COMMISSIONER: Thank you.

THE REGISTRAR: 64.

THE COMMISSIONER: What number, please?

10 THE REGISTRAR: 64.

THE COMMISSIONER: Thank you.

--- EXHIBIT NO. 64: Curriculum Vitae of

Mr. Robert Secord

15

MS. CHOWN:

Q. Now, Mr. Secord, before we hear in some detail the way that your Ministry is organized, and in particular how it funds provincial sporting organizations, and we will hear from another witness about Ontario's doping initiatives, could you start off and assist us -- since we have heard from the Federal Sport Canada people -- can you assist us as to in what ways the Province of Ontario and the Federal Government work together in the development of sport?

20

25

A. Fundamentally, there is a very close relationship between the provincial and territorial government and the Fitness and Amateur sport branch of the Federal Government. Specifically, there are mechanisms
5 put into in place to ensure that that co-ordination, cooperation is continuous. There is an annual conference of provincial, federal and territorial Sport and Recreation Ministers. There is an ongoing committee of Deputy Ministers responsible for Sport Recreation and
10 fitness, and there is a standing committee formed in 1969 entitled the Inter-Provincial Sport and Reaction Council.

Q. I was going to ask you what the purpose of that council was?

A. It is composed of people in position,
15 such as myself, from the ten provinces and the two territories. It's major purpose it is to provide co-ordination and cooperation on national activities, and in that way we relate to the Federal Government.

It has three major components, the coaching
20 committee, the fitness committee, and probably related to the Inquiry, the Federal, Provincial, Territorial Sport Committee. There is also representation from the provinces on the National Certification Council, the Coaching Association of Canada, and on the Canada Games
25 Council, which is the responsible body for the governments

of the Canada Games.

Q. As you have indicated, the Federal, Provincial, Territorial Sport Committee has some relevance to the issues that are before the Commissioner in this Inquiry.

Can you tell us in what way that sport committee -- what it has had as its priority and focus?

A. Well, the committee was formed about 1980. It was entitled: A Blueprint for Canadian Sport.

Since then it has changed its name, but it has not changed the focus. It's really a description of vision for Canadian sport. How the various components, both government and non-governmental can be assimilated into a meaningful sport structure that's relevant to domestic and international sport development in Canada. And through the annual conference of Ministers, to which I referred, it brings ideas, suggestions and recommendations for approval to enhance those objectives.

Q. Is it any part of the priorities of that Committee to look at such issues as doping?

A. Yes.

It has four major focuses in the present year. There will be another conference of Ministers in Nova Scotia in the fall, and they will be asking for a report from that committee and the inter-provincial

council on coaching, violence, fair play, safety, and that will include substance abuse ---

THE COMMISSIONER: I am sorry, excuse me, Mr. Secord, I didn't hear you. The emphasis is on coaching, I have missed the next line?

THE WITNESS: Coaching, violence, fair play, safety and substance abuse.

THE COMMISSIONER: All right.

THE WITNESS: Winter sport development.

THE COMMISSIONER: Right.

THE WITNESS: And finally, athlete support programs in an attempt to perhaps commonalize those.

THE COMMISSIONER: All right.

MS. CHOWN::

Q. As you have indicated, part of the focus on fair play and safety includes a focus on anti-doping education?

A. That's correct.

And I think it should be noted that the Ministers' Conference in Winnipeg in November of last year focused for a considerable part on that latter subject to which you have just referred.

Q. And the purpose of that focus at both the Provincial and Federal level, as I understand it, is

to ensure that there is not duplication of effort, but instead cooperation, and usage of resources in an effective way?

5 A. That's right. And that we would be singing the same hymn out of the same hymn book.

Q. Good way of putting it.

A. And our resources could be optimized therefore.

10 Q. I understand you have prepared for us an overhead which sets out the organizational structure of the Ministry of Tourism and Recreation. And that is in hard copy, Mr. Commissioner, in the material that's before you.

15 A. Yes, as you are aware the Ministry is a department of the provincial government. The Minister is the Honourable Hugh O'Neil.

Q. How long has he held that ministry?

A. Pardon.

20 Q. How long has Mr. O'Neil been the Minister?

A. About a year and a half.

Q. All right.

25 A. It has a Deputy Minister who is head of the Department. And this particular ministry has four divisions which namely, operations, corporate management

services, tourism, and the recreation division, for which I have responsibility. And the recreation division, as you can see, has two branches, the recreation branch, and the one of primary interest to you is the sports and fitness branch.

THE COMMISSIONER: You are Assistant Deputy Minister, is that your title?

THE WITNESS: I am sorry, sir?

THE COMMISSIONER: What is your title?

THE WITNESS: My title?

THE COMMISSIONER: Yes.

THE WITNESS: Assistant Deputy Minister.

THE COMMISSIONER: That's your division there, the recreation division?

THE WITNESS: Yes, sir.

MS. CHOWN:

Q. As you have indicated, the recreation division last two sub branches, but the sports and fitness branch is the one that's most relevant for our purposes today?

A. That's correct. The recreation branch would deal more with non-physical activity issues in leadership training and so on.

MS. CHOWN: All right. Mr. Commissioner,

might we mark that organizational chart as Exhibit 65.

THE COMMISSIONER: Thank you.

THE REGISTRAR: 65.

5 --- EXHIBIT NO. 65: Organizational chart.

MS. CHOWN:

Q. You have also prepared for us a
breakdown of the sport and fitness branch of the
10 recreation division, and you have an overhead before us
now setting out that organization of that particular
branch.

As it appears on the overhead, there is a
Director and underneath that four sections being the
15 development section, the fitness section, the games and
technical service section, and the community and safety
initiative section?

A. That's right.

Q. Now we are going to hear in more detail
20 about some of the items under each one of these groups,
but if I could just draw your attention, first of all, to
the games and technical section, I understand that is the
section that has responsibility for coaching and athlete
assistance, being the Ontario funding of individual
25 athletes?

A. That's correct.

Q. And we are going to hear more about that later. As well, under that section we see sport development centres. They are somewhat equivilant to the federal high performance centres we have heard about?

A. Very similar.

Q. All right. And under the community and safety initiatives section, the last item is entitled sport and fitness safety program.

And, Mr. Commissioner, we are going to be hearing from Ms. Keast who will discuss the initiatives taken by that program with a focus on anti-doping.

THE COMMISSIONER: Thank you.

THE WITNESS: It might be of interest to the Inquiry that other provinces and the two territories have similar, but not necessarily identical, structures related to amateur sport development in that jurisdiction in terms of programs and services that are offered at that level.

MS. CHOWN:

Q. All right. To be fair then this chart simply refers to the Ontario organization?

A. That's right.

Q. Would it be fair to say that other

provinces though do have involvement perhaps in a slightly different form though in the same areas, coaching, athletic development?

A. All of them.

5

MS. CHOWN: Thank you.

If we could mark that chart, Mr. Commissioner, as Exhibit 66.

THE COMMISSIONER: Thank you.

THE REGISTRAR: 66.

10

--- EXHIBIT NO. 66: Overhead setting out the organizational structure of the Sport and Fitness Branch.

15

MS. CHOWN:

Q. The next overhead you have prepared for us is a little bit of a review from Mr. Makosky's testimony, but it is placing the provincial sport organization in the context of the overall sport organization chart.

20

As we heard from Mr. Makosky there is a relationship between the provincial sport organizations, to the national sport organizations, to the international sport organizations; is that correct?

25

A. That's correct.

Q. At the bottom of your overhead here you have listed two sports, archery and wrestling, and in the middle of them there is the number 73. Can you explain that line to us, please?

5 A. Yes. What that means is that the Province of Ontario supports 73 provincial sport organizations. "A" at the top of the alphabet being archery and "W" toward the end being wrestling. In between "A" and "W" there are 71 more sport organizations that receive funding from the Sports and Fitness Branch of
10 the Ministry.

Q. And would all those 73 organizations be single sport organizations?

15 A. Yes. All except one, which is called the Group Support Office, and that serves a number of smaller sports that do not have an administrative full-time staff of their own.

Q. For each of these provincial sport organizations, would there be a corresponding national
20 sport organization?

A. Not in all cases. There are 12 organizations that are distinctive to the Province of Ontario or distinctive to the provinces that are not serviced by Sport Canada.

25 Q. You have indicated through the

recreation division that you provide funding for provincial sport organizations. And I understand the total amount of that funding for those organizations is some \$14 million?

5 A. That's correct. And that would serve approximately 1.4 million registered members of the 73 organizations.

THE COMMISSIONER: Excuse me.

10 THE WITNESS: And two and a half million further recipients of service that are not necessarily registered with that organization, but receive service from that organization.

THE COMMISSIONER: I am sorry, in the 73 sports organizations there is 1,400,000 people?

15 THE WITNESS: I am sorry?

MS. CHOWN: Mr. Secord has as little difficulty hearing, Mr. Commissioner.

THE WITNESS: I have this unfortunately in front every me.

20 THE COMMISSIONER: Okay.

Give me those figures again. I didn't get your figures. Can you tell me those figures again.

MS. CHOWN:

25 Q. Of the numbers of members, Mr. Secord?

A. Registered members of the 73
organizations approximate 1.3 million.

THE COMMISSIONER: Thank you.

THE WITNESS: And non-registered members,
5 that's people who get services such rule books, coaching
guides, et cetera is 2.5.

So what we are really talking about is in
the neighborhood of 3.8 Ontario residents receive services
through the organizations that are funded by the Ministry.

10 Q. I would like to talk to you now a
little bit more about how provincial sport organizations
go about applying for and getting this funding from the
recreation division.

15

20

25

Q. First of all, just so that we're clear, I take it that these provincial sport organizations do not receive 100 per cent of their funding through the recreation division?

5 A. That's correct.

Q. And they do receive funding from outside non-governmental sources. Do you have any estimate as to the breakdown between government and non-government funding at the provincial level?

10 A. Yes. On the average, if you take all 73, the average would be approximately 50 per cent government funding and 50 per cent other funding.

The other funding would come from private and corporate sector support, membership fees that are charged to the affiliates of that provincial sport organization and other services that they would sell to their -- to their members or to the public in general.

So, roughly on the average, it's 50 per cent for each of government and non-government sources.

20 Q. And what is the purpose or what objectives is the recreation division trying to meet in funding these provincial sport organizations?

A. Well, there are two. One is participation development and that is for people who participate in any particular sport activity for the sheer

25

fun, enjoyment and self-satisfaction that comes from that participation. That what we might consider to be the participatory side.

5 And then we also have a responsibility to work with those organizations in the development of high performance athlete.

10 So it's both participation and the high performance athlete development. And it's on the basis of those two criteria for which the funds can be applied to those 73 organizations.

Q. Now, we've heard of course, a great deal from Fitness and Amateur Sport and Sport Canada about federal funding of high performance athletes. You've also said that this is also a provincial objective.

15 In what way are you funding high performance sport that is different than the Federal Government?

20 A. Well, we've -- I think it would be safe to say that the Federal Government's general thrust has been toward high performance athlete development. While we consider that a priority from a provincial perspective, we also feel a real responsibility for people, as I say, who just wish to play for satisfaction and enjoyment.

25 Q. Is it also fair to say that the high performance athletes that Ontario is assisting are those who are just below the level of a national team athlete?

A. That's correct.

Q. By just below the level, I mean in achievement to date but might have the potential to go on to be a nationally carded athlete?

5 A. That's right. And that's the key word is the potential to go on.

Q. So your funding at the provincial level is a bridge to assist these athletes through a stage of their development until they reach a sufficient standard of performance that they would then fall under the federal
10 umbrella?

A. From the high performance perspective and, as I say, we also have the participatory component which we feel is very important.

15 Q. As well. How does a provincial sport body go about for applying for funds from the recreation division?

A. Well, there are a criteria which are established in each of the areas that we're prepared to
20 fund.

Fundamentally, they make applications to the Ministry for the two reasons that I have identified, that is participation and high performance development. There is a number of cost sharing issues that are involved in
25 this as we've heard on the 50/50 ratio and what they do is

share with the development section and the consultants in the development section, their plans for both increasing participation and high performance development.

5 And it's on the basis of criteria within a number of funding categories on which our allocations to them are based.

Q. Can you identify for us the particular provincial sport organizations that would receive, for instance, are there any that receive over \$1 million of
10 funding from the Ontario government?

A. No, there are none that receive over \$1 million. As you indicated earlier, our total resources are about \$14 million and that of course has to be shared, as I've suggested, with 73 organizations and they have to
15 share it with about 3.6 million members of those organizations.

The highest grant we would give with approximate \$950,000 and that would be to the sport of skiing. One of the reasons that that is so high is that,
20 in Ontario, the skiing disciplines, and I'm speaking here, Mr. Commissioner, of downhill, Nordic, biathalon, Nordic combined and ski jumping, have formed a federation of their own so that that \$950 million (sic) would be appropriated based on the wishes of the sport association
25 and the advice of our consultants among all the skiing

disciplines.

Q. I believe you said \$950 million? Did you mean ---

A. Did I say \$950 million?

5 THE COMMISSIONER: That's wishful thinking.

THE WITNESS: My budget has not increased quite that rapidly. \$950,000, I'm sorry.

MS. CHOWN:

10 Q. Although, I'm sure skiing would appreciate \$950 million?

A. I would appreciate it very much. Swimming would be the next highest. That would be approximately \$680,000. Gymnastics would be next, about 15 \$450,000. Figure skating, about \$380,000 and about the same amount for track and field.

And they would be the highest number of recipients of our funding and, of course, as you can understand, that that's largely the result of numbers of 20 participants they have related to that association.

Q. Okay. Now, I understand you have prepared an overhead for us that lists some of the particular activities that are funded through these grants and that is a document entitled, "Eligible Areas of 25 Support," and you've got a number of items listed

underneath it and we are simply going to spend some time on a few of those.

If we can go down, first of all, to the fifth item which is championship travel. Can you tell me, first of all, what amount of money your division spends on championship travel and what that means?

A. That's one of the areas of support, as you can see and I think it's important to recognize, that in no case does the government fund 100 per cent of any of those categories, including the salaries of the executive director, the technical director and the provincial coach or the program director. That's all co-founded with corporate sectors, as I've suggested earlier.

As far as championship travel is concerned, you recognize that there three parts to that; provincial championships, national championships, and international championships.

The policy is that the sport associations are eligible up to 50 per cent of the costs for, in those categories, with certain limitation based on the allocation of funds and the number of events that we are capable of handling in any given year.

Roughly the amount appropriated for championship travel in total for provincial, national and international competition is about \$2.7 million a year.

Q. Just so we're clear, that is monies that are devoted to accomodation and travel costs for athletes travelling to the kinds of competitions you've mentioned?

5 A. Solely travel and accomodation.

Q. Would an athlete who is a resident in the Province of Ontario and holds a Federal card be eligible for funds under this championship travel program?

A. No, they would not.

10 Q. I'm sorry?

A. They would not. Once the individual athlete has gone through what we term the Ontario sport system and has reached the level where they become carded by Sport Canada, then all support from us ceases and they are then dependent on Sport Canada for their training and competition allowances which have already been described in the Inquiry.

15

Q. So, as we go through the particular items on this list we're referring then only to athletes who are not holding Federal cards?

20

A. Right.

Q. I think we still need to leave it on, unfortunately. The next item I'm going to ask you to comment on is the sixth one, hosting championships.

25

Can you tell me the amount of money involved

there and what its purpose is?

A. Well, the idea of hosting championships is -- really has a number of dimensions. Obviously, we want to bring Ontario's best athletes together with the best athletes from other jurisdictions including provinces, territories and other countries.

And by assisting them in hosting provincial, national and international championship, we're able to do that. So this grant is really applied to the cost of hosting championships at that level.

Again, they are eligible for a limited amount of support; \$5,000 for hosting a provincial championship, \$10,000 for a national championship and \$25,000 for an international championship and that is the maximum amount. It's usually negotiated below that.

The other thing, of course, it's important -- or there are two things that are important here, I believe. Number one is the fact that it gives the public the opportunity for some of the provinces or the nations and the world best athletes, and because they're generally located in a community, it gives that opportunity for the community to bring together hundreds of volunteers to put this event on and that has a significant impact both socially and economically on the community in which those events are held.

Q. On the last aspect of that, that you mentioned, international competition, you would be making a contribution there along with the Federal Government?

A. That's correct.

5 Q. And your total amount of money that you devoted to that portion of hosting championships was what?

A. I'm sorry?

Q. What is the total amount of money that you put into hosting championships?

10 A. In the 1987/88 fiscal year, which is the last complete fiscal year, about \$480,000 in all three of those categories.

Q. All right. The next item on our overhead is, "Athlete Development". Mr. Commissioner,
15 we're going to come back to that, so we skip down to the next one. It's "Coaches".

I understand, first of all, it's rather a propitious time to be talking about coaches because 1989 has been declared the Year of the Coach?

20 A. That's right.

Q. And I have advised you that we'll be having Dr. Geoff Gowan from the Coaching Association of Canada come and be a witness tomorrow so we'll hear more about the coaching program.

25 But can you assist us today as to what role

Ontario plays in the development of coaches?

A. Yes. The National Coaching Certification Program was really started here in Ontario and has now developed into a national program.

5 It has three principal components, very technical, and practical and I'm sure that Dr. Gowan will explain those in considerably more detail.

The role of ministry is to delivery to Ontario's coaches, at the community level, one, up to the provincial level, three, the program that has been
10 developed for coaching certification.

So our role in this is a delivery role and we have, at the present time, almost 100,000 coaches enrolled in the program -- 90,000 to be exact.

15 Q. All right. And just so we're clear, as I understand it, the National Coaching Certification Program is an effort to ensure that coaches obtain a certain standard of training and expertise that they can then pass on and it's a movement away from the volunteer
20 coaching without such training we had in the past?

A. That's correct. And it really developed on the basis of the fact that you need to know, to be a coach or to be a leader or to be an example or to bring the person not only to the technical excellence but
25 to individual, personal, psychological, social excellence.

In other words, it's the development of the whole personality. You need to know more than the techniques of hitting the bat with the ball. You need to know how people learn. You need to know how to be an example. You need to be able to motivate, enable and stimulation.

That's the whole theory behind the program, to take it from the technical level and put it into a far more important level in terms of the coach's impact on the individual associated with him or her.

Q. And following up on your last comment, you've drawn to my attention that a coach who was in level 3 of this program will be participating in and having some exposure to education about substance abuse and, in fact, the coaching manual for that level states that the use of anabolic steroids, with or without protein supplement, may be harmful to health and is illegal in sports; therefore, their use must be discontinued?

A. That's correct.

Q. Again, we'll hear more about this but this is a role, an education role that coaches are to undertake?

A. That's correct.

Q. I understand that your division provides a budget of about \$300,000 a year to deliver this

program in Ontario?

A. That's right.

Q. Now, the next item I'd like to go to are the sport development centres and we've referred to these earlier. I understand that these are somewhat similar to the federal high performance centres that we've heard some evidence about?

A. Right.

Q. What is the purpose of them on the provincial level?

A. Basically, the same intent as the high performance centres by the Federal Government and that is to assist developing athletes in enhancing their skills in that particular sport.

We also encourage a number of what we might call club athletes or those who haven't shown a high degree of potential to be able to come in, be associated with the centre, utilize the coaching, use the facilities, use the equipment in hopes that their participation and performance can be increased.

So, it's not limited solely to athletes that have been identified yet as having high performance potential.

Q. And how many of those are in the Province of Ontario?

A. Well, at the moment there are four, what we call, provincial centres and they're entirely subsidized by the province.

5 Q. We might just highlight those, Mr. Commissioner. I understand there is a woman's Field Hockey Centre in Toronto at the University of Toronto?

A. Correct.

10 Q. There is a sailing centre located at Geneva Park in Orillia, a soccer centre in Oakville, and I understand it uses the facilities of Appleby College and a waterpolo centre at -- in Toronto again at the University of Toronto?

15 A. And our support in most cases goes to the coaching component, although they submit an entire budget and we cost share in that.

Then there are 14, I believe, National Provincial Centres, which are cost shared with Sport Canada and generally an institution such as the university and the province assists in those, as well.

20 Q. Mr. Commissioner, we're now going to turn to the Athlete Assistance Program. I wonder if we might mark this eligible areas of support document as Exhibit 67?

THE COMMISSIONER: Thank you.

25 THE REGISTRAR: 67.

--- EXHIBIT NO. 67: Document entitled Eligible Areas of
Support

MS. CHOWN:

5 Q. The Athletes Assistance Program, as I
understand it, Mr. Secord, is a provision of direct
support to Ontario athletes who do not hold Federal cards?

A. Indirect support.

Q. All right.

10 A. It is not given directly to the
athlete, it's given to their provincial association based
on criteria and it's distributed to the athletes by what
we call a PSO.

15 Q. But the end result of the program is
that the athlete would receive then, from his or her PSO,
a stipend to assist in training and living allowance?

A. That's right.

Q. When was this program put into effect
in Ontario?

20 A. It really started in 1977 and the
allocations and the criteria have changed since that time
and it's been pretty standard since 1984, in terms of the
number of cards which we offer and the allocation and the
criteria for support.

25 Q. You indicate on the overhead at the

present time there are 503 athletes in Ontario receiving assistance through this program and there are only two levels of carding in Ontario, the gold and the silver?

A. Right.

5 Q. If we go down to the bottom of your overhead, a gold carded athlete would receive a basic training and living allowance of \$1,000 and that is per year. I want to be clear.

10 A. Per year, yes. I want to make that clear, Mr. Commissioner. That's not per month, that's per year.

15 Q. In addition to that, a gold carded athlete would be eligible for some further benefits relating to special needs and tuition and you've indicated on the overhead that, on average, a gold carded athlete in Ontario received \$1,500 a year?

A. That's right.

20 Q. The silver carded athletes have a basic allowance of \$500 and again receive extra supplements so their average support is \$667 a year?

A. That's correct.

Q. And this overhead also indicates that your total budget for making these allocations for 1988/89 was \$580,000?

25 A. Correct.

Q. And at the bottom you've made the note, which is worth repeating, that no support is provided to Ontario athletes once they have achieved Sport Canada carded status?

5 A. Right.

Q. And is that the approach that is taken in other provinces as well that provide support to their athletes?

A. In most provinces, yes. It's a general
10 provincial/federal agreement that once the athlete has reached provincial elite status and become a member of the national team, as receiving a national card from Sport Canada, that they are no longer the responsibility of the province and we drop down therefore and take compensating
15 numbers in that sport to bring them to that level.

Some provinces do provide supplement but very few and Ontario does not.

MS. CHOWN: Mr. Commissioner, might we mark the document entitled Athlete Assistance Program as
20 Exhibit 68?

THE REGISTRAR: 68.

THE COMMISSIONER: Very well.

--- EXHIBIT NO. 68: Document, Athlete Assistance Program

25

MS. CHOWN:

Q. I think I can touch, very briefly, Mr. Commissioner, on two short areas before four o'clock.

The next thing, Mr. Secord, I would invite
5 your comments on is the Ontario Sports Centre. I understand this to be a building located in Toronto which houses some of the provincial sport organizations?

A. Correct.

Q. And it's located on Sheppard Avenue in
10 Toronto?

A. 1220 Sheppard Avenue East, in Toronto, that's correct.

Q. And does the Ontario government own the building?

15 A. No. It's leased by the board of the sports centre and the government contributes to its operation.

Q. And in those premises, I understand 41
of the 73 provincial sport organizations and a further
20 three multi-sport organizations have their offices and staff?

A. Correct.

Q. And what happened to the other 20 odd?

A. Well, most of them would not have
25 sufficient membership at this point in time to have

full-time staff and therefore they could be served out of the group sport office but the 41 that are resident there have full-time staff responsible for the administration, leadership, and the coaching and programming of those 41.

5 So, in essence, none of the 73 are excluded from service and the 41 who have full-time staff are located in that centre.

 Q. All right. And in some ways this is a similar organization to the Federal National Sport and Fitness Administration Centre which, as we've heard,
10 houses many of the national sport organizations?

 A. That's right.

 Q. And the amount of money that you provide to support the Ontario Sports Centre is what, on
15 an annual basis?

 A. Well, 1987/88, the total operations of the centre came to \$5.9 million. Of that, the Ministry contributed \$3 million and internal revenues which are, in essence, chargebacks to the associations that are resident
20 equal \$2.8 million. So it's roughly 51 per cent government and 48 per cent self-financed.

 Q. And finally for today, I wonder if you could comment briefly on an organization that exists in Ontario called Sport Ontario and tell us what the purpose
25 of that organization is and whether it has any

relationship to the -- to Sport Canada which we've heard so much about in earlier testimony?

A. No, it's quite different. May I, with respect sir, make one more point about the Sports Centre?

5 THE COMMISSIONER: Sure.

MS. CHOWN:

Q. Certainly?

A. All of the sport associations in
10 Ontario are required to be an incorporated nonprofit organization. The Sports Centre is run by a board of directors, the members are appointed either by the minister or by the resident sport association and they administers the affairs of the centre.

15 Now, speaking of Sport Ontario, it is quite different than Sport Canada. Sport Canada, as you have been informed, is the federal arm responsible for amateur sport in the province.

Sport Ontario, on the other hand, is a --
20 has no connection with the government and it is a federation of many of the 73 PSO's, not all, but the majority belong to that. It's major responsibility is to identify issues, concerns and future directions of sport, in a general or generic sense, and to articulate those
25 either to government for assistance or to the private

sector for support.

In other words, it acts as the collective sport for sport for both the private and the public sector of Ontario.

5 Q. Does it have a parallel in the federal organization?

A. Sports Federation of Canada could be the parallel. It permits the government, through that organization and the Parks and Recreation Federation, to
10 discuss future directions of our programs and our services so they're relevant to the needs of those athletes and those organizations that we serve.

MS. CHOWN Thank you, Mr. Commissioner. I have my eye on the clock.

15 THE COMMISSIONER: I have to leave, thank you.

MS. CHOWN: I have finished with my questions for Mr. Secord, but.....

20 THE COMMISSIONER: Well, tomorrow morning at ten o'clock. Ten o'clock tomorrow morning? Thank you.

---Whereupon the proceedings were adjourned to recommence at 10:00 a.m., Thursday, January 19, 1989.

25

